

SECTION

PG

POWER SUPPLY, GROUND & CIRCUIT ELEMENTS

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PRECAUTIONS

< PRECAUTION >

PRECAUTION

PRECAUTIONS

Precaution for Supplemental Restraint System (SRS) "AIR BAG" and "SEAT BELT PRE-TENSIONER"

INFOID:000000001547048

The Supplemental Restraint System such as "AIR BAG" and "SEAT BELT PRE-TENSIONER", used along with a front seat belt, helps to reduce the risk or severity of injury to the driver and front passenger for certain types of collision. This system includes seat belt switch inputs and dual stage front air bag modules. The SRS system uses the seat belt switches to determine the front air bag deployment, and may only deploy one front air bag, depending on the severity of a collision and whether the front occupants are belted or unbelted. Information necessary to service the system safely is included in the SR and SB section of this Service Manual.

WARNING:

- To avoid rendering the SRS inoperative, which could increase the risk of personal injury or death in the event of a collision which would result in air bag inflation, all maintenance must be performed by an authorized NISSAN/INFINITI dealer.
- Improper maintenance, including incorrect removal and installation of the SRS, can lead to personal injury caused by unintentional activation of the system. For removal of Spiral Cable and Air Bag Module, see the SR section.
- Do not use electrical test equipment on any circuit related to the SRS unless instructed to in this Service Manual. SRS wiring harnesses can be identified by yellow and/or orange harnesses or harness connectors.

Precaution for Power Generation Variable Voltage Control System

INFOID:000000001547049

CAUTION:

For this model, the battery current sensor that is installed to the negative battery cable measures the charging/discharging current of the battery and performs various engine controls. If an electrical component is connected directly to the negative battery terminal, the current flowing through that component will not be measured by the battery current sensor. This condition may cause a malfunction of the engine control system and battery discharge may occur. Do not connect an electrical component or ground wire directly to the battery terminal.

PREPARATION

< PREPARATION >

PREPARATION

PREPARATION

Special Service Tool

INFOID:000000001547050

The actual shapes of Kent-Moore tools may differ from those of special service tools illustrated here.

Tool number (Kent-Moore No.) Tool name	Description
— (J-48087) Battery Service Center	Tests battery. For operating instructions, refer to Technical Service Bulletin and Battery Service Center User Guide.
— (J-44373) Model 620 Starting/Charging system tester	Tests starting and charging systems. For operating instructions, refer to Technical Service Bulletin.

Commercial Service Tool

INFOID:000000001547051

Tool number Tool name	Description
Power tool	Loosening bolts and nuts

BATTERY

< BASIC INSPECTION >

BASIC INSPECTION

BATTERY

How to Handle Battery

INFOID:000000001712683

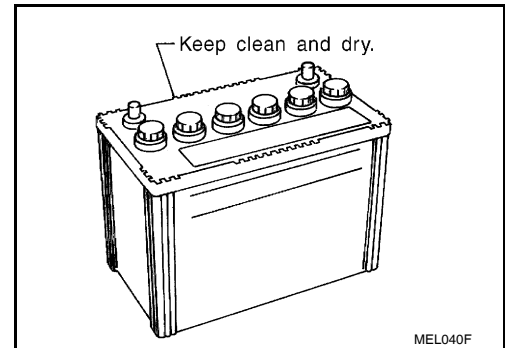
CAUTION:

- If it becomes necessary to start the engine with a booster battery and jumper cables, use a 12-volt booster battery.
- After connecting battery cables, ensure that they are tightly clamped to battery terminals for good contact.
- Never add distilled water through the hole used to check specific gravity.

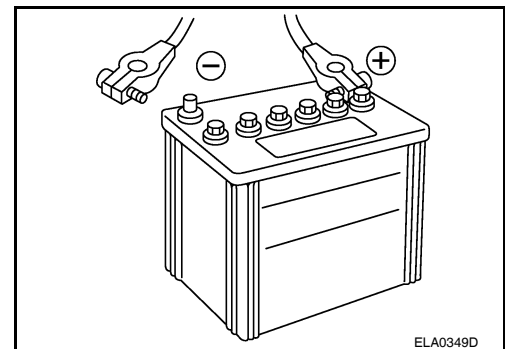
METHODS OF PREVENTING OVER-DISCHARGE

The following precautions must be taken to prevent over-discharging a battery.

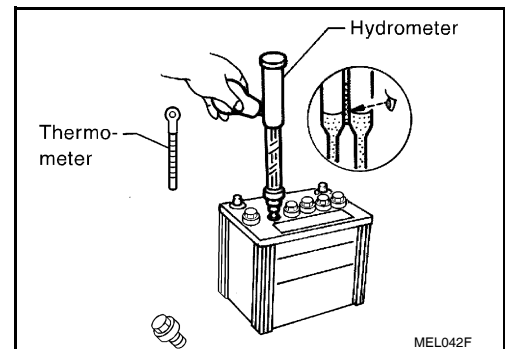
- The battery surface (particularly its top) should always be kept clean and dry.
- The terminal connections should be clean and tight.
- At every routine maintenance, check the electrolyte level.
This also applies to batteries designated as "low maintenance" and "maintenance-free".



- When the vehicle is not going to be used over a long period of time, disconnect the battery cable from the negative terminal. (If the vehicle has an extended storage switch, turn it off.)



- Check the charge condition of the battery.
Periodically check the specific gravity of the electrolyte. Keep a close check on charge condition to prevent over-discharge.



CHECKING ELECTROLYTE LEVEL

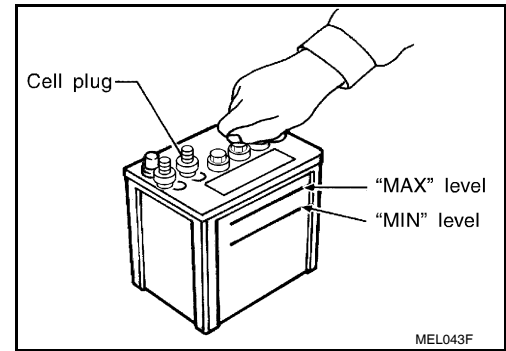
WARNING:

Never allow battery fluid to come in contact with skin, eyes, fabrics, or painted surfaces. After touching a battery, never touch or rub your eyes until you have thoroughly washed your hands. If acid contacts eyes, skin or clothing, immediately flush with water for 15 minutes and seek medical attention.

BATTERY

< BASIC INSPECTION >

- Remove the cell plug using a suitable tool.
- Add distilled water up to the MAX level.

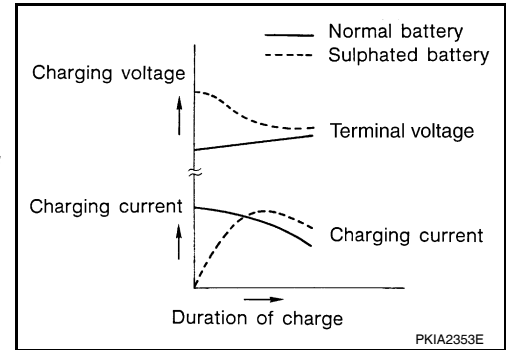


Sulphation

A battery will be completely discharged if it is left unattended for a long time and the specific gravity will become less than 1.100. This may result in sulphation on the cell plates.

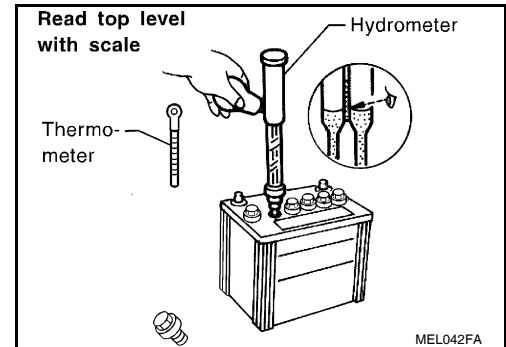
To determine if a battery has been “sulphated”, note its voltage and current when charging it. As shown in the figure, less current and higher voltage are observed in the initial stage of charging sulphated batteries.

A sulphated battery may sometimes be brought back into service by means of a long, slow charge, 12 hours or more, followed by a battery capacity test.



SPECIFIC GRAVITY CHECK

1. Read hydrometer and thermometer indications at eye level.
2. Use the chart below to correct your hydrometer reading according to electrolyte temperature.



Hydrometer Temperature Correction

Battery electrolyte temperature [°C (°F)]	Add to specific gravity reading
71 (160)	0.032
66 (150)	0.028
60 (140)	0.024
54 (130)	0.020
49 (120)	0.016
43 (110)	0.012
38 (100)	0.008
32 (90)	0.004
27 (80)	0
21 (70)	-0.004
16 (60)	-0.008
10 (50)	-0.012
4 (40)	-0.016
-1 (30)	-0.020
-7 (20)	-0.024

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BATTERY

< BASIC INSPECTION >

Battery electrolyte temperature [°C (°F)]	Add to specific gravity reading
-12 (10)	-0.028
-18 (0)	-0.032

Corrected specific gravity	Approximate charge condition
1.260 - 1.280	Fully charged
1.230 - 1.250	3/4 charged
1.200 - 1.220	1/2 charged
1.170 - 1.190	1/4 charged
1.140 - 1.160	Almost discharged
1.110 - 1.130	Completely discharged

CHARGING THE BATTERY

CAUTION:

- Never “quick charge” a fully discharged battery.
- Keep the battery away from open flame while it is being charged.
- When connecting the charger, connect the leads first, then turn on the charger. Never turn on the charger first, as this may cause a spark.
- If battery electrolyte temperature rises above 55 °C (131 °F), stop charging. Always charge battery at a temperature below 55 °C (131 °F).

Charging Rates

Amps	Time
50	1 hour
25	2 hours
10	5 hours
5	10 hours

Do not charge at more than 50 ampere rate.

NOTE:

The ammeter reading on your battery charger will automatically decrease as the battery charges. This indicates that the voltage of the battery is increasing normally as the state of charge improves. The charging amps indicated above refer to initial charge rate.

- If, after charging, the specific gravity of any two cells varies more than 0.050, the battery should be replaced.

Work Flow

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TROUBLE DIAGNOSIS WITH BATTERY SERVICE CENTER

For battery testing, use Battery Service Center (J-48087). For details and operating instructions, refer to Technical Service Bulletin and/or Battery Service Center User Guide.

POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

COMPONENT DIAGNOSIS

POWER SUPPLY ROUTING CIRCUIT

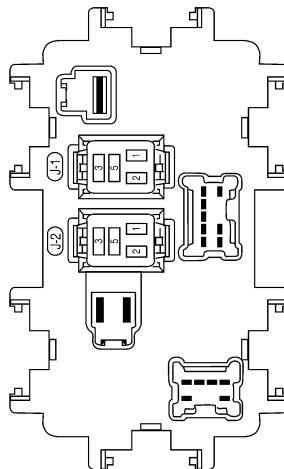
Wiring Diagram—Battery Power Supply—

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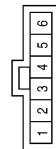
For detailed ground distribution, refer to [PG-26, "Ground Distribution"](#).

Terminal No.	Color of Wire	Signal Name
1	—	—
2	—	—
3	—	—
5	—	—

Connector No.	J-1
Connector Name	REAR BLOWER MOTOR RELAY
Connector Color	—



Connector No.	R209
Connector Name	REAR AIR CONTROL (REAR)
Connector Color	BLACK

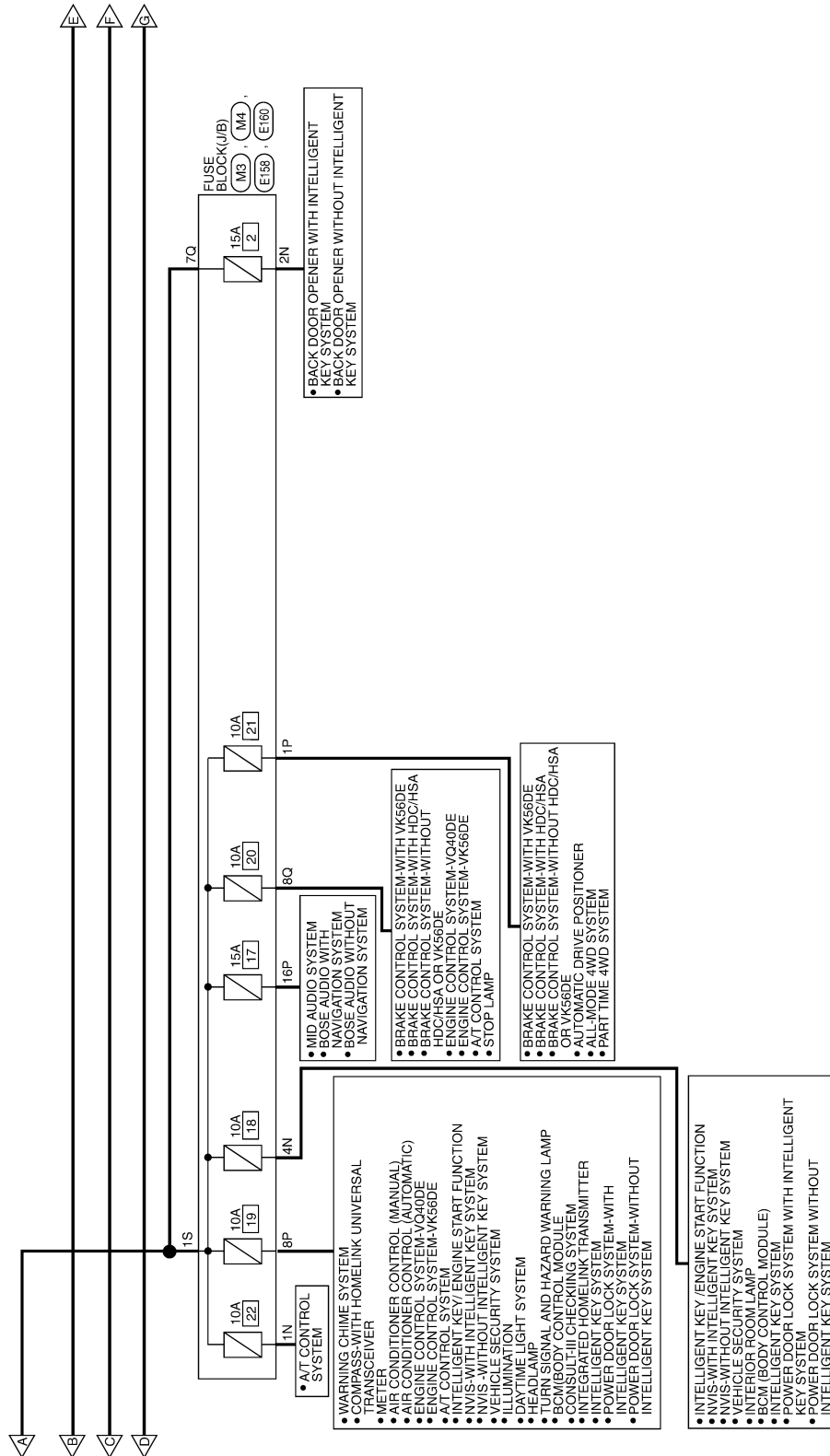


Terminal No.	Color of Wire	Signal Name
1	W/G	—
5	O/R	—
6	B	—

POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

(N) : FOR CANADA
 (FL) : WITH FRONT FOG LAMPS



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< COMPONENT DIAGNOSIS >



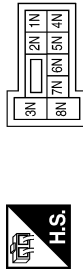
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

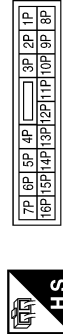
BATTERY POWER SUPPLY CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



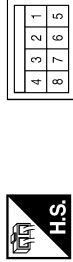
Terminal No.	Color of Wire	Signal Name
1N	R/B	-
2N	R/B	-
4N	R/Y	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



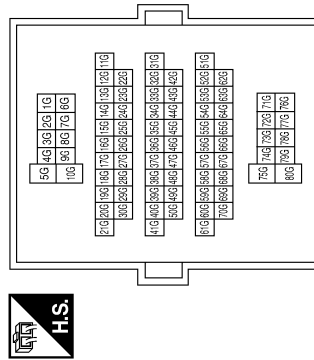
Terminal No.	Color of Wire	Signal Name
1P	R/B	-
8P	R/Y	-
16P	R/B	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W/G	-
7	W	-

Connector No.	M31
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
22G	V	-

Connector No.	M82
Connector Name	CIRCUIT BREAKER-2 (WITHOUT AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	W	-
2	P	-

POWER SUPPLY ROUTING CIRCUIT

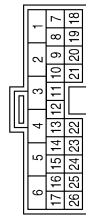
< COMPONENT DIAGNOSIS >

Connector No.	M82
Connector Name	CIRCUIT BREAKER-2 (WITH AUTOMATIC DRIVE POSITIONER)
Connector Color	WHITE



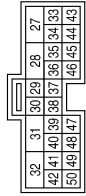
Terminal No.	Color of Wire	Signal Name
1	SB	—
2	P	—

Connector No.	M152
Connector Name	TRANSFER CONTROL UNIT
Connector Color	WHITE



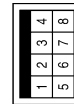
Terminal No.	Color of Wire	Signal Name
25	W/G	IGN_SW

Connector No.	M153
Connector Name	TRANSFER CONTROL UNIT
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
40	V	SSOF

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W/G	—
7	W	—

Connector No.	E30
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	—



Terminal No.	Color of Wire	Signal Name
1	R	—

Connector No.	E118
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W	F/LUSM
2	R	F/LMAIN

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

9	8	7	6	5	4	3
18	17	16	15	14	13	12
11	10					



Terminal No.	Color of Wire	Signal Name
3	G	IGN_COIL
4	P	ENG_SUPPLY
6	V	ELEC_THROTTLE
7	BR	ECM_RLY_CONT
10	R/B	DTRL_RLY_SUPPLY

Connector No.	E120
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

21	20	19
24	23	22



Terminal No.	Color of Wire	Signal Name
20	BR	M/FAN_1
22	G	MOTOR_FAN
23	LG	HEATED_MIRROR
24	P	M/FAN_2

Connector No.	E121
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

28	28	27	26	25
36	35	34	33	32
31	30			



Terminal No.	Color of Wire	Signal Name
28	R	CLEARANCE_FRONT_LH
29	G	TRAILER_RLY_CONT
30	R/B	ECM_BAT

Connector No.	E122
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE

42	41	40	39	38	37
48	47	46	45	44	43



Terminal No.	Color of Wire	Signal Name
38	B	GND (SIGNAL)
47	O	ECM (ETC_RLY_CONT)

Connector No.	E123
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BROWN

51	50	49
56	55	54
53	52	



Terminal No.	Color of Wire	Signal Name
49	GR	CLEARANCE_FRONT_RH
50	W	FR_FOG_LAMP_LH
51	V	FR_FOG_LAMP_RH
52	P	H/LAMP_LO_LH
54	R	H/LAMP_LO_RH
55	G	H/LAMP_HI_LH
56	L	H/LAMP_HI_RH

Connector No.	E124
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK

59	58	57
62	61	60



Terminal No.	Color of Wire	Signal Name
57	GR	TAIL_LAMPS
59	B	GND (POWER)
61	R/B	TRAILER_RLY_SUPPLY

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	E129
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	BROWN



Terminal No.	Color of Wire	Signal Name
1	W	-
2	R	-

Connector No.	E128
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
4	W	-
7	W	-

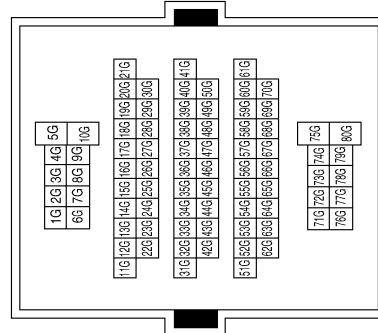
Connector No.	E156
Connector Name	TRANSFER SHUT OFF RELAY1
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1	W/G	-
2	B	-
3	B	-
5	W	-

Terminal No.	Color of Wire	Signal Name
22G	V	-

Connector No.	E152
Connector Name	WIRE TO WIRE
Connector Color	WHITE



AWMIA0544GB

POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	E157
Connector Name	TRANSFER SHUT OFF RELAY2
Connector Color	BLUE



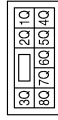
Terminal No.	Color of Wire	Signal Name
1	G	-
2	V	-
3	B	-
5	W	-

Connector No.	E158
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLUE



Terminal No.	Color of Wire	Signal Name
1S	W	-

Connector No.	E160
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7Q	W	-
8Q	R/B	-

Connector No.	E202
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	Color of Wire	Signal Name
5	B/R	-

Connector No.	E204
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	Color of Wire	Signal Name
6	B/R	-

Connector No.	E206
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	-



Terminal No.	Color of Wire	Signal Name
1	B/R	B

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

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Connector No.	E210
Connector Name	STARTER MOTOR
Connector Color	BLACK



Terminal No.	2
Color of Wire	B/R
Signal Name	-

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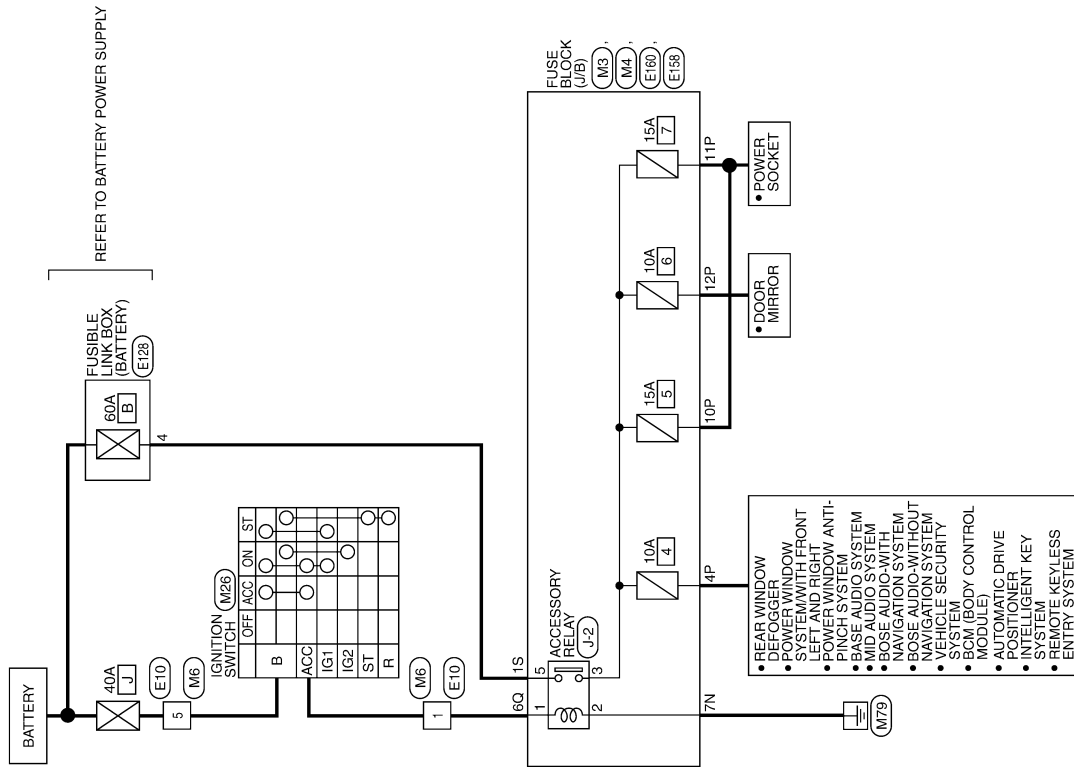
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Wiring Diagram—Accessory Power Supply—

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ACCESSORY POWER SUPPLY



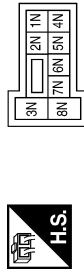
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

ACCESSORY POWER SUPPLY CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
7N	B	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
4P	G/B	-
10P	G/Y	-
11P	G/B	-
12P	G/Y	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



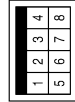
Terminal No.	Color of Wire	Signal Name
1	G/Y	-
5	G	-

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
B	G	-
ACC	G/Y	-

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1	G/Y	-
5	G	-

Connector No.	E128
Connector Name	FUSIBLE LINK BOX (BATTERY)
Connector Color	GRAY



Terminal No.	Color of Wire	Signal Name
4	W	-

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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	E160
Connector Name	FUSE BLOCK(J/B)
Connector Color	WHITE



3Q	2Q	1Q
8Q	7Q	6Q
5Q	4Q	

Terminal No.	Color of Wire	Signal Name
6Q	G/Y	-

Connector No.	E158
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK

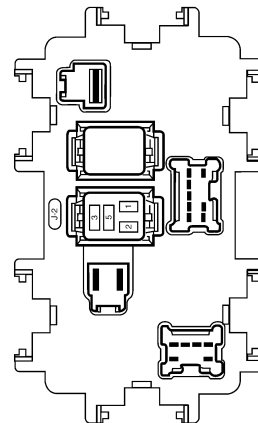


1S

Terminal No.	Color of Wire	Signal Name
1S	W	-

Terminal No.	Color of Wire	Signal Name
1	G/Y	-
2	B	-
3	G/B	-
6	W	-

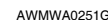
Connector No.	J-2
Connector Name	ACCESSORY RELAY
Connector Color	-



AWMIA0537GB

< COMPONENT DIAGNOSIS >

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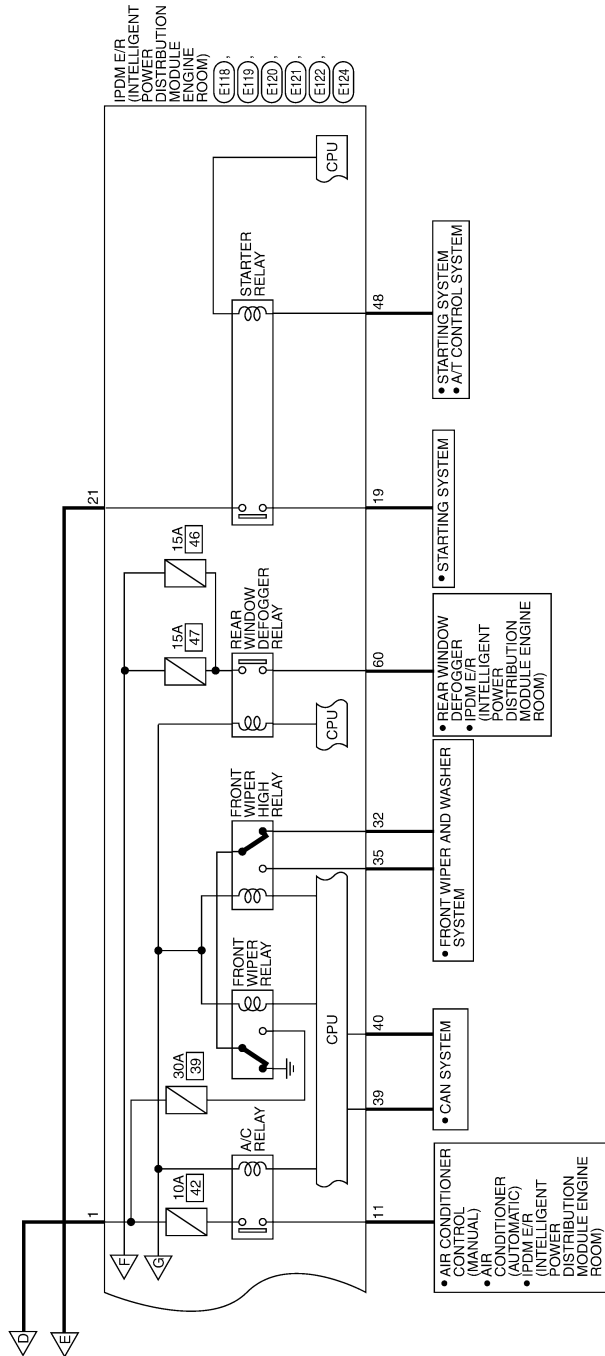


< COMPONENT DIAGNOSIS >



POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >



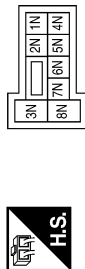
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POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

IGNITION POWER SUPPLY CONNECTORS

Connector No.	M3
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



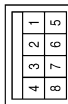
Terminal No.	Color of Wire	Signal Name
3N	L	-
5N	W/G	-
7N	B	-
8N	GR	-

Connector No.	M4
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



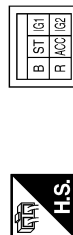
Terminal No.	Color of Wire	Signal Name
2P	W/G	-
5P	W/G	-
6P	W/R	-
7P	LG	ST-R
9P	W/G	-
13P	W/G	-
14P	O	-
15P	W/R	-

Connector No.	M6
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W/G	-
5	G	-
6	W	-

Connector No.	M26
Connector Name	IGNITION SWITCH
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
B	G	-
IG1	W/G	-
IG2	G/Y	-

Connector No.	E10
Connector Name	WIRE TO WIRE
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
2	W/G	-
5	G	-
6	W	-

Connector No.	E118
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1	W	F/LUSM
2	R	F/LMAIN

AWMIA0538GB

POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	E120
Connector Name	IPDM E/R(INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



21	20	19
24	23	22

Terminal No.	Color of Wire	Signal Name
19	W	STARTER_MOTOR
21	GR	IGN_SW_(ST)

Terminal No.	Color of Wire	Signal Name
15	W/R	ABS_IGN_SUPPLY
16	W/G	REVERS_LAMP
17	W/G	INJECTION

Connector No.	E119
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



9	8	7	6	5	4	3
18	17	16	15	14	13	12
11	10					

Terminal No.	Color of Wire	Signal Name
8	W/R	O2_SENS
11	Y	A/C_COMPRESSOR
12	W/G	IGN_SW_(IG1)
13	R	FUEL_PUMP
14	W/G	AT_ECU_IGN_SUPPLY

Connector No.	E124
Connector Name	IPDM E/R (INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BLACK



59	58	57
62	61	60

Terminal No.	Color of Wire	Signal Name
59	B	GND (POWER)
60	GR	RR_DEF

Connector No.	E122
Connector Name	IPDM E/R(INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	WHITE



42	41	40	39	38	37
48	47	46	45	44	43

Terminal No.	Color of Wire	Signal Name
38	B	GND (SIGNAL)
39	L	CAN-H
40	P	CAN-L
43	G	AUTO_STOP_SW
46	V	ECM (FUEL_PUMP_FLY_CONT)
48	R	INHIBIT

Connector No.	E121
Connector Name	IPDM E/R(INTELLIGENT POWER DISTRIBUTION MODULE ENGINE ROOM)
Connector Color	BROWN



29	28	27	26	25
36	35	34	33	32
31	30			

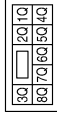
Terminal No.	Color of Wire	Signal Name
27	W	T_TOW_REV_LAMP
32	GR	FR_WIPER_LO
35	L	FR_WIPER_HI

AWMIA0539GB

POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Connector No.	E160
Connector Name	FUSE BLOCK (J/B)
Connector Color	WHITE



Terminal No.	Color of Wire	Signal Name
1Q	W/G	-
2Q	R	-
3Q	W/G	-
5Q	W/R	-

Connector No.	E159
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1R	W/B	-
2R	GR	-

Connector No.	E158
Connector Name	FUSE BLOCK (J/B)
Connector Color	BLACK



Terminal No.	Color of Wire	Signal Name
1S	W	-

AWMIA0540GB

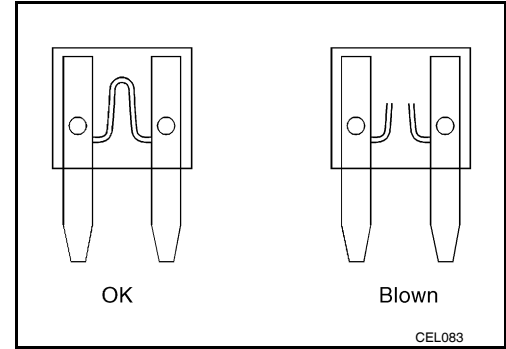
POWER SUPPLY ROUTING CIRCUIT

< COMPONENT DIAGNOSIS >

Fuse

INFOID:000000001731008

- If fuse is blown, be sure to eliminate cause of incident before installing new fuse.
- Use fuse of specified rating. Never use fuse of more than specified rating.
- Do not partially install fuse; always insert it into fuse holder properly.
- Remove fuse for "ELECTRICAL PARTS (BAT)" if vehicle is not used for a long period of time.



Fusible Link

INFOID:000000001731009

A melted fusible link can be detected either by visual inspection or by feeling with finger tip. If its condition is questionable, use circuit tester or test lamp.

CAUTION:

- If fusible link should melt, it is possible that critical circuit (power supply or large current carrying circuit) is shorted. In such a case, carefully check and eliminate cause of incident.
- Never wrap outside of fusible link with vinyl tape.
- Never let fusible link touch any other wiring harness, vinyl or rubber parts.

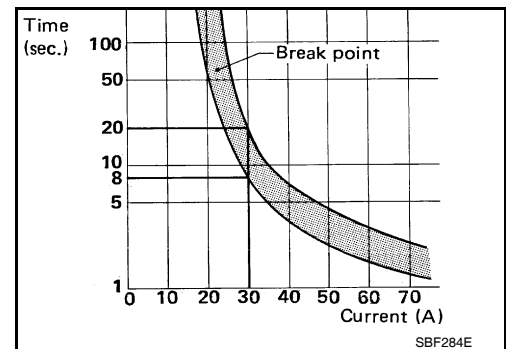
Circuit Breaker (Built Into BCM)

INFOID:000000001731010

For example, when current is 30A, the circuit is broken within 8 to 20 seconds.

A circuit breaker is used for the following systems:

- Power windows
- Power sunroof



GROUND CIRCUIT

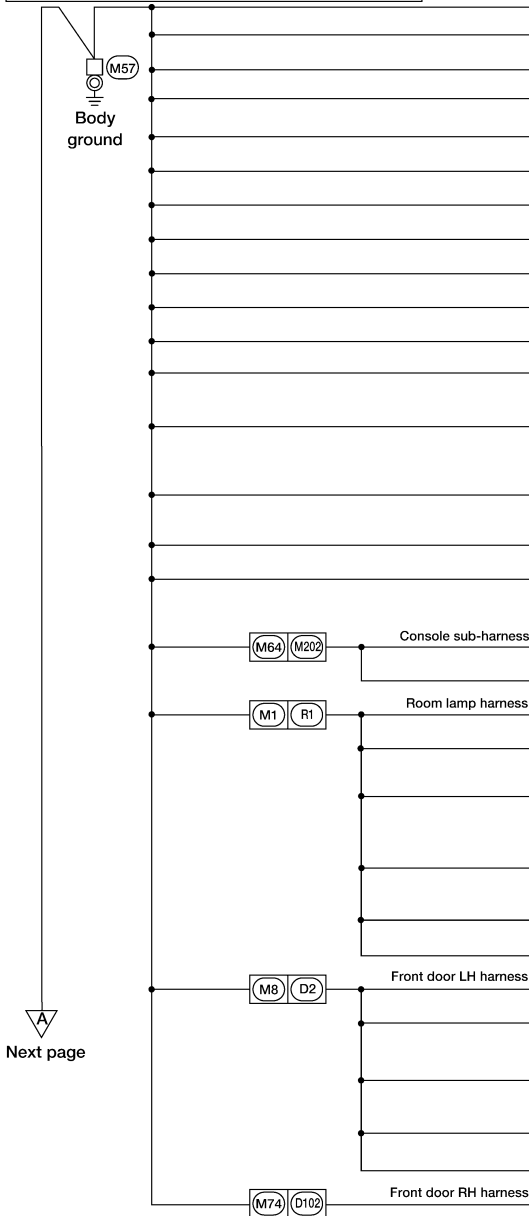
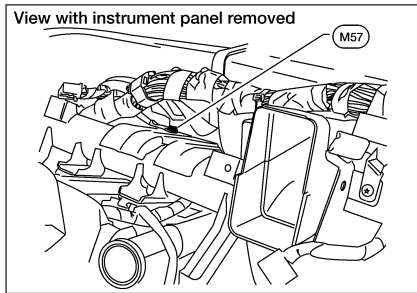
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GROUND CIRCUIT

Ground Distribution

INFOID:000000001731011

Main Harness

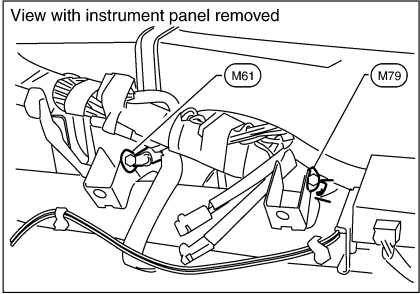


CONNECTOR NUMBER	CONNECT TO
(M5)	Combination Switch (Heated Steering) (Terminal No.2)
(M7)	Heated Steering Wheel Switch
(M14)	Pedal Adjusting Control Unit (Terminal No.1)
(M20)	BCM (Body Control Module)
(M21)	Nats Antenna Amp
(M22)	Data Link Connector (Terminal No.4)
(M22)	Data Link Connector (Terminal No.5)
(M24)	Combination Meter (Terminal No.23)
(M26)	Combination Switch (Terminal No.12)
(M34)	Automatic Drive Positioner Control Unit (Terminal No.48)
(M65)	Steering Lock Solenoid
(M76)	Electric Brake (Pre-wiring)
(M96)	Pedal Adjusting Switch (Terminal No.4) (Adjustable Pedal System)
(M96)	Pedal Adjusting Switch (Terminal No.1) (Automatic Drive Positioner)
(M155)	HDC Switch
(M159)	Door Mirror Remote Control Switch (Terminal No.13) (Automatic Drive Positioner)
(M208)	Rear Air Control (Rear) (Terminal No.1)
(M209)	Rear Air Control (Terminal No.1) (With Auto A/C)
(R2)	Rear Air Control (Front) (Terminal No.1)
(R4)	Sunroof Switch
(R7)	Auto Anti-Dazzling Inside Mirror (Terminal No.3) (With Homelink Universal Transceiver)
(R7)	Auto Anti-Dazzling Inside Mirror (Terminal No.6) (Without Homelink Universal Transceiver)
(R9)	Front Room/Map Lamp Assembly
(R10)	Personal Lamp 2ND Row
(D4)	Door Mirror LH (Terminal No.6) (Door Mirror Defogger)
(D5)	Seat Memory Switch
(D8)	Main Power Window And Door Lock/Unlock Switch (Terminal No.17)
(D14)	Front Door Lock Assembly LH
(D16)	Front Door Request Switch LH
(D103)	Front Door Lock Actuator RH (Door Lock Sensor)

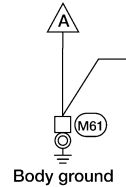
AWMIA0547GB

GROUND CIRCUIT

< COMPONENT DIAGNOSIS >



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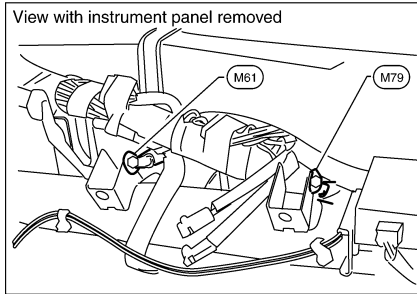
Next page

CONNECTOR NUMBER	CONNECT TO
(M13)	Front Passenger Air Bag Off Indicator
(M22)	Data Link Connector (Terminal No.4)
(M22)	Data Link Connector (Terminal No.5)
(M24)	Combination Meter (Terminal No.13)
(M32)	In-Vehicle Sensor
(M34)	Automatic Drive Positioner Control Unit (Terminal No.40)
(M35)	Air Bag Diagnosis Sensor Unit (Terminal No.2)
(M42)	AV Control Unit (Terminal No.20) (Mid Audio System)
(M42)	AV Control Unit (Terminal No.20) (Bose Audio Without Navigation System)
(M45)	AV Control Unit (Terminal No.54) (Mid Audio System)
(M45)	AV Control Unit (Terminal No.54) (Bose Audio Without Navigation System)
(M46)	AV Control Unit (Terminal No.68) (Bose Audio With Navigation System)
(M46)	AV Control Unit (Terminal No.70) (Bose Audio With Navigation System)
(M46)	AV Control Unit (Terminal No.89) (Bose Audio With Navigation System)
(M46)	AV Control Unit (Terminal No.90) (Bose Audio With Navigation System)
(M49)	Front Air Control
(M50)	A/C Auto Amp
(M51)	Front Blower Switch
(M55)	Hazard Switch
(M70)	AV Control Unit (Terminal No.85) (Mid Audio System)
(M70)	AV Control Unit (Terminal No.85) (Bose Audio Without Navigation System)
(M98)	A/C And AV Switch Assembly (Terminal No.1)
(M122)	Variable Blower Control (Front)
(M139)	Diode-1
(M152)	Transfer Control Unit (Terminal No.3) (All-mode 4WD)
(M152)	Transfer Control Unit (Terminal No.18) (Part Time 4WD)
(M153)	Transfer Control Unit (Terminal No.32) (Part Time 4WD)
(M154)	VDC Off Switch
(M156)	A/T Device (Terminal No.2)
(M156)	A/T Device (Terminal No.8) (Without Manual Mode Switch)
(M156)	A/T Device (Terminal No.10) (Without Manual Mode Switch)
(M156)	A/T Device (Terminal No.9) (With Manual Mode Switch)
(M159)	Door Mirror Remote Control Switch

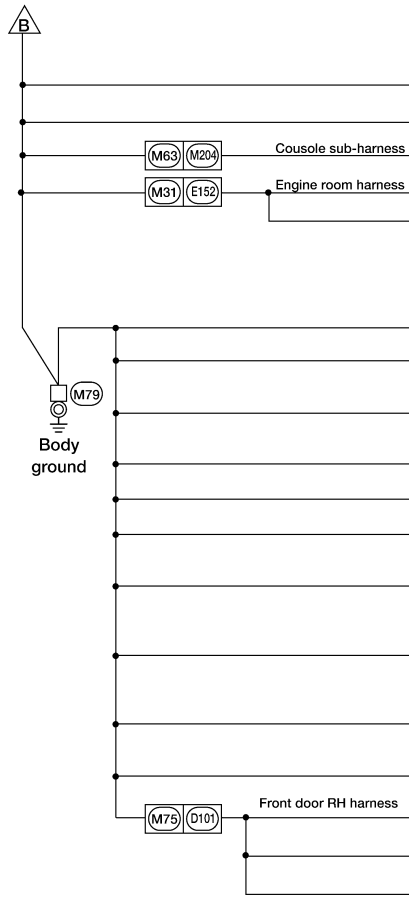
AWMIA0548GB

GROUND CIRCUIT

< COMPONENT DIAGNOSIS >



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CONNECTOR NUMBER	CONNECT TO
M160	Front Heated Seat Switch RH
M161	Front Heated Seat Switch LH
M207	Console Power Socket
E46	Transfer shift high relay (Terminal No.2)
E47	Transfer shift low relay (Terminal No.2)

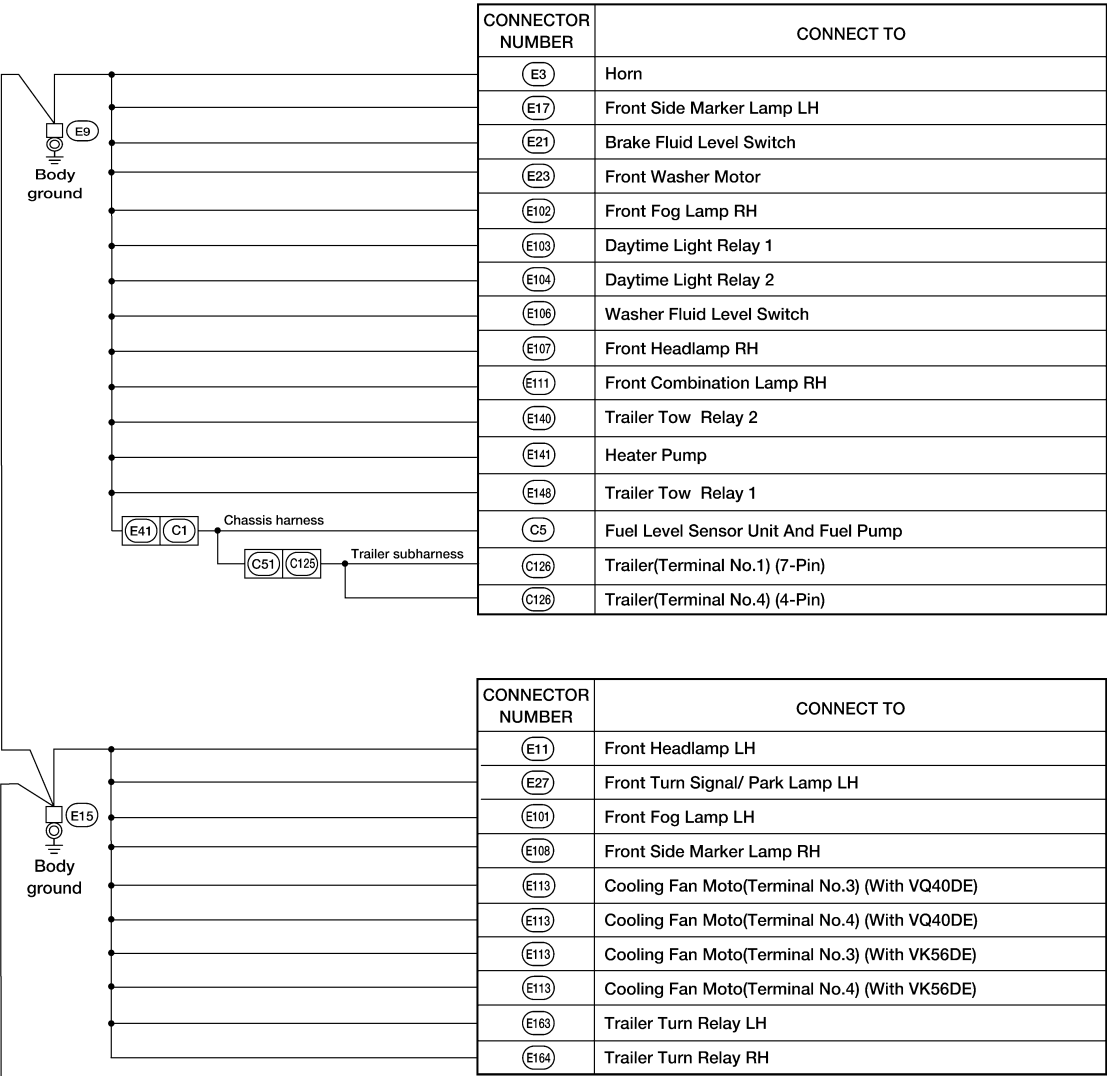
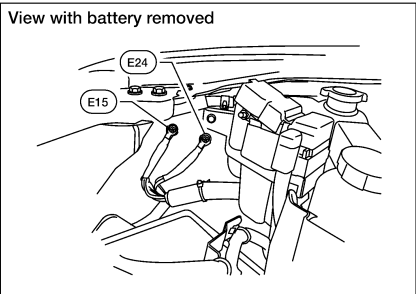
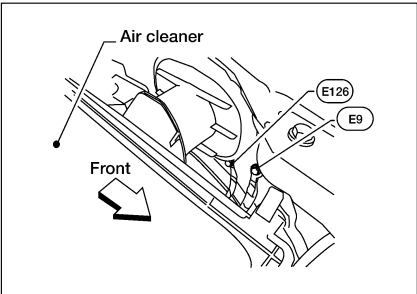
CONNECTOR NUMBER	CONNECT TO
M3	Fuse Block (J/B)
M53	Lower Front Power Socket (Terminal No.2)
M54	Upper Front Power Socket (For Cigarette Lighter) (Terminal No.2)
M59	Glove Box Lamp
M76	Electric Drare (Pre -Wiring)
M93	Display Unit (Terminal No.1) (Mid Audio System)
M93	Display Unit (Terminal No.1) (Bose Audio With Navigation System)
M93	Display Unit (Terminal No.13) (Bose Audio With Navigation System)
M98	A/C And Av Switch Assembly (Terminal No.1) (Without Bose Audio System)
M164	Intelligent Key Unit
D105	Power Window And Door Lock/Unlock Switch RH
D107	Door Mirror RH (Door Mirror Defogger) (Terminal No.6)
D116	Front Door Request Switch RH

AWMIA0549GB

GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

Engine Room Harness

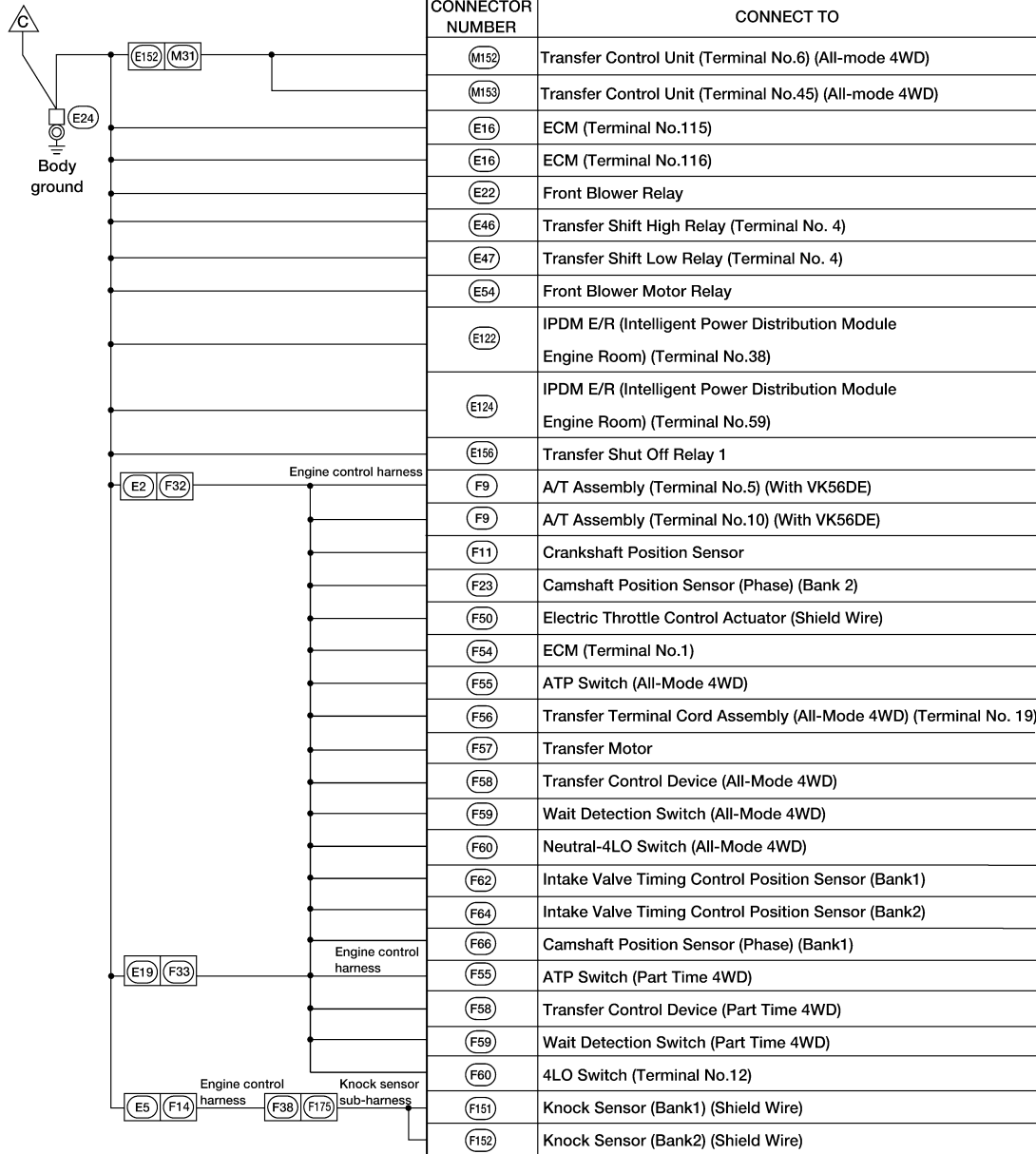
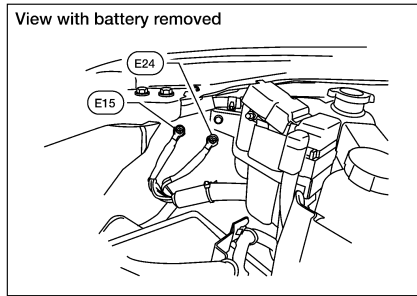


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AWMIA0550GB

GROUND CIRCUIT

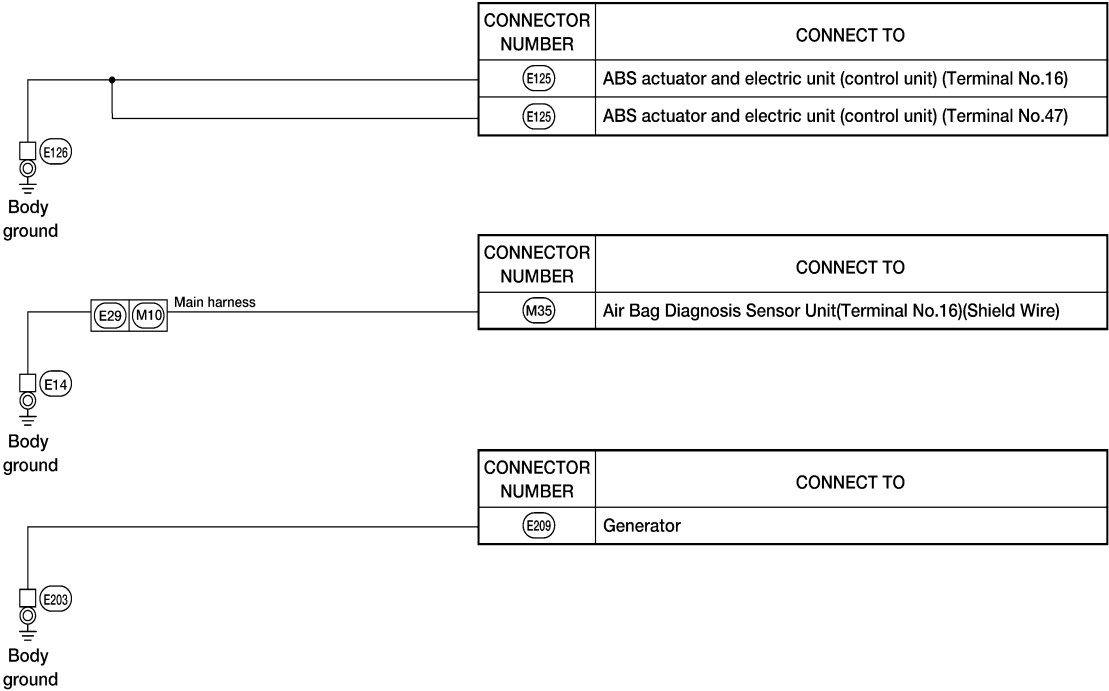
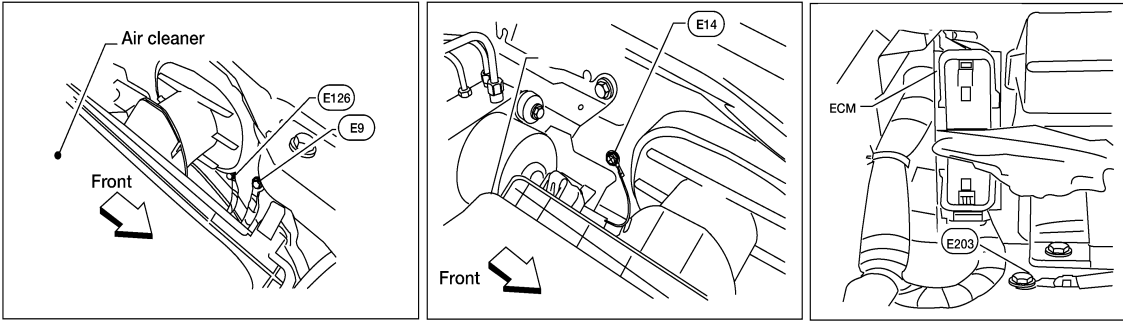
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AWMIA0551GB

GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

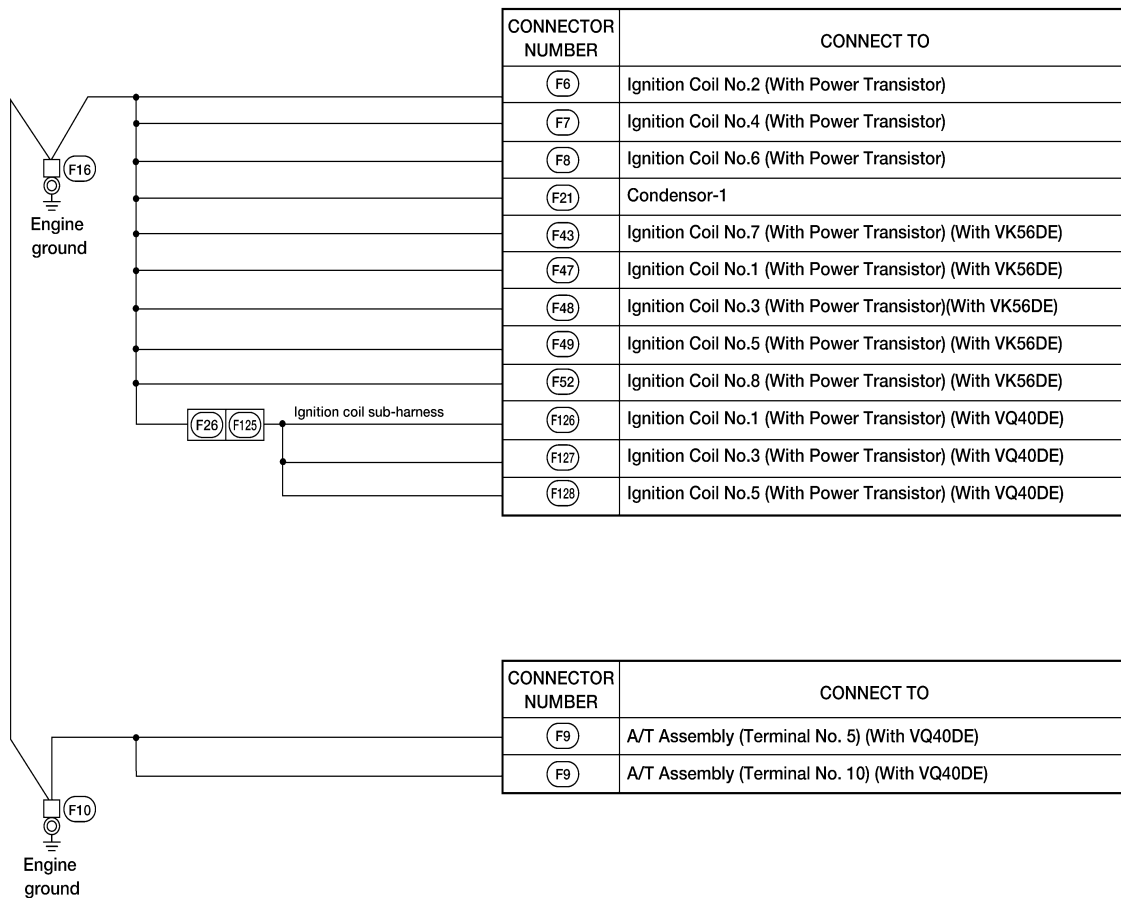
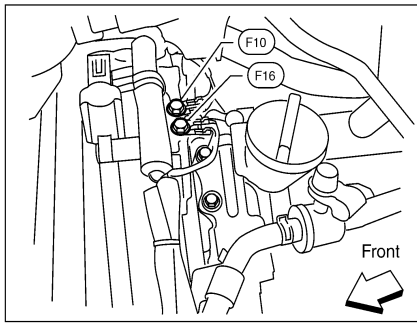


AWMIA0552GB

GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

Engine Control Harness

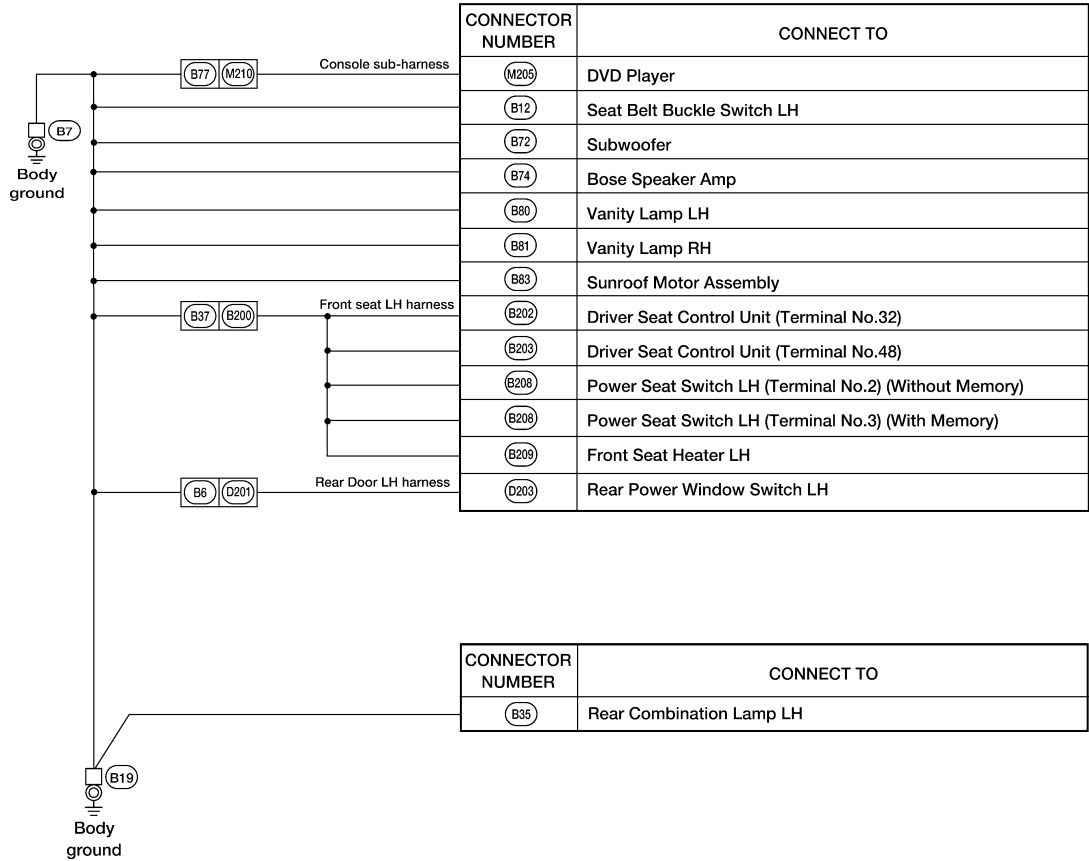
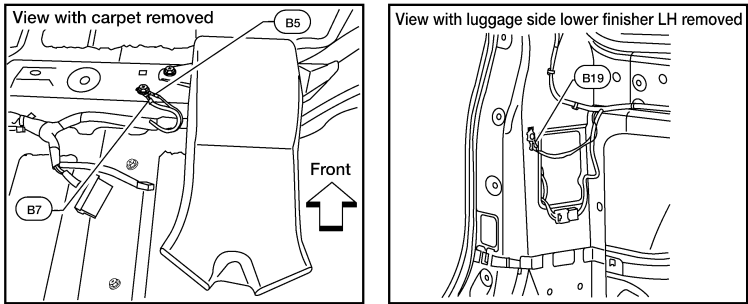


AWMIA0553GB

GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

Body Harness

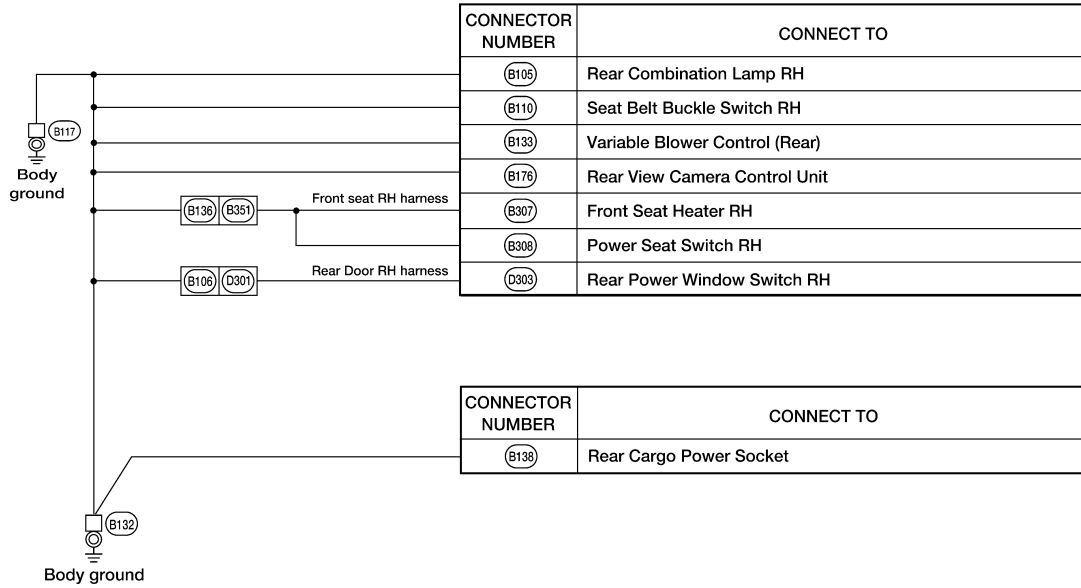
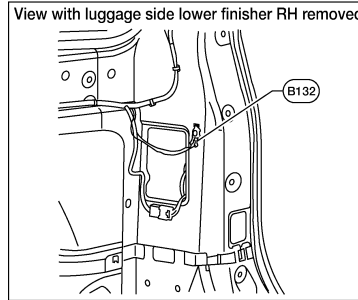
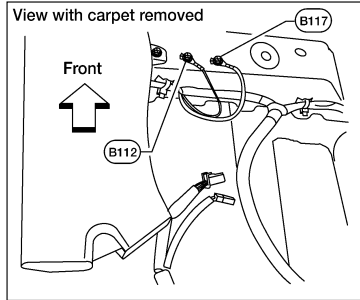


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GROUND CIRCUIT

< COMPONENT DIAGNOSIS >

Body No. 2 Harness

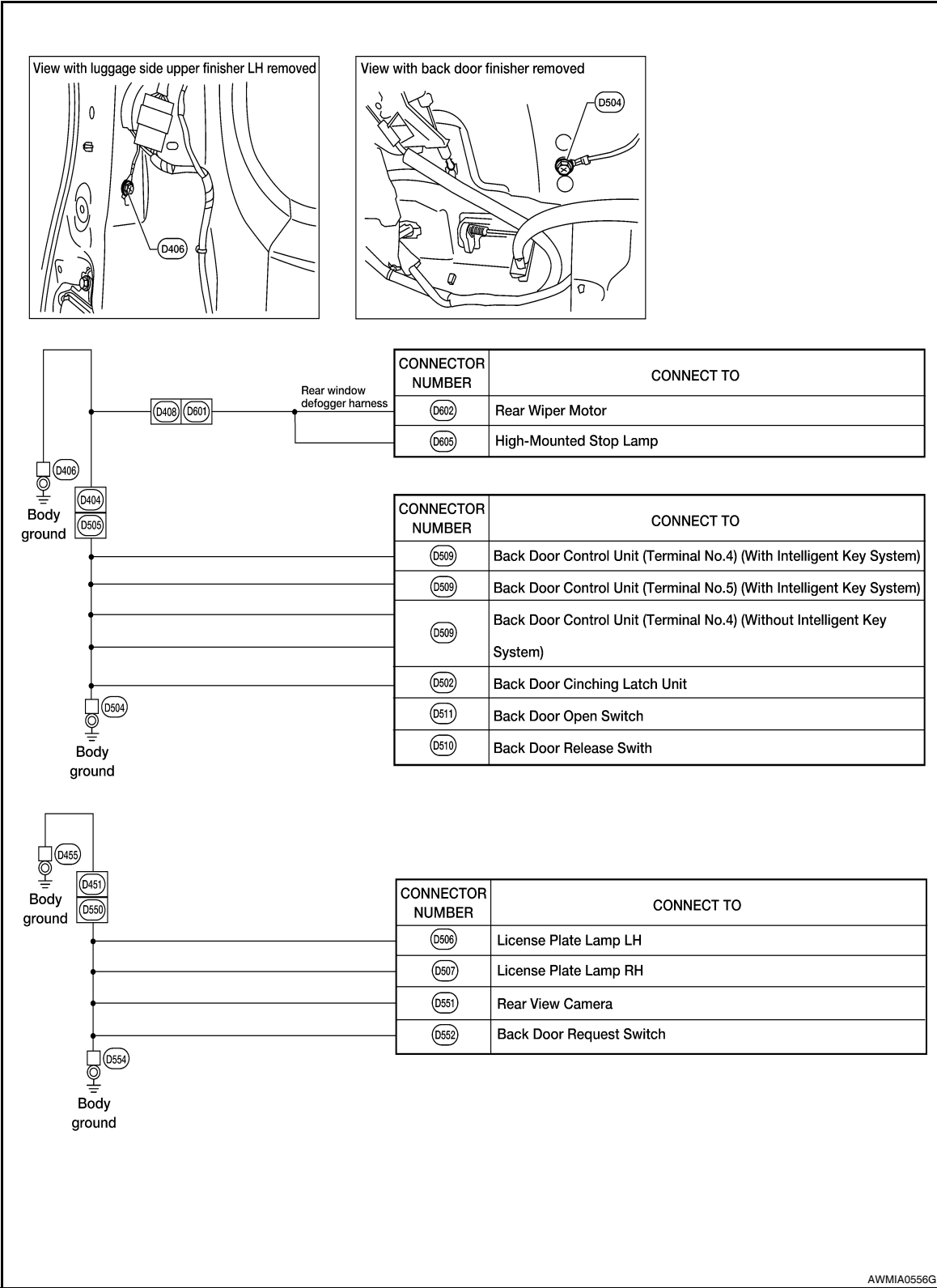


AWMIA0555GB

GROUND CIRCUIT

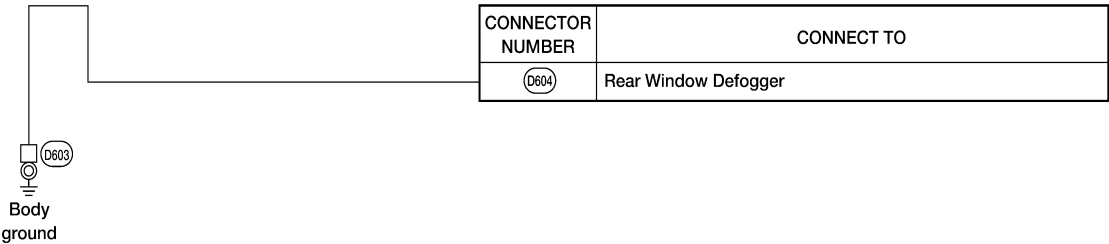
< COMPONENT DIAGNOSIS >

Back Door No. 2 and Back Door Harness



GROUND CIRCUIT

< COMPONENT DIAGNOSIS >



AWMIA0557GB

HARNESS

< COMPONENT DIAGNOSIS >

HARNESS

Harness Layout

INFOID:000000002987614

HOW TO READ HARNESS LAYOUT

The following Harness Layouts use a map style grid to help locate connectors on the drawings:

- Main Harness
- Engine Room Harness
- Engine Room Harness (Passenger Compartment)
- Engine Control Harness
- Chassis Harness
- Body Harness
- Body No. 2 Harness
- Room Lamp Harness
- Back Door Harness

To use the grid reference

1. Find the desired connector number on the connector list.
2. Find the grid reference.
3. On the drawing, find the crossing of the grid reference letter column and number row.
4. Find the connector number in the crossing zone.
5. Follow the line (if used) to the connector.

Example:

G2 **E1** **B/6** : ASCD ACTUATOR

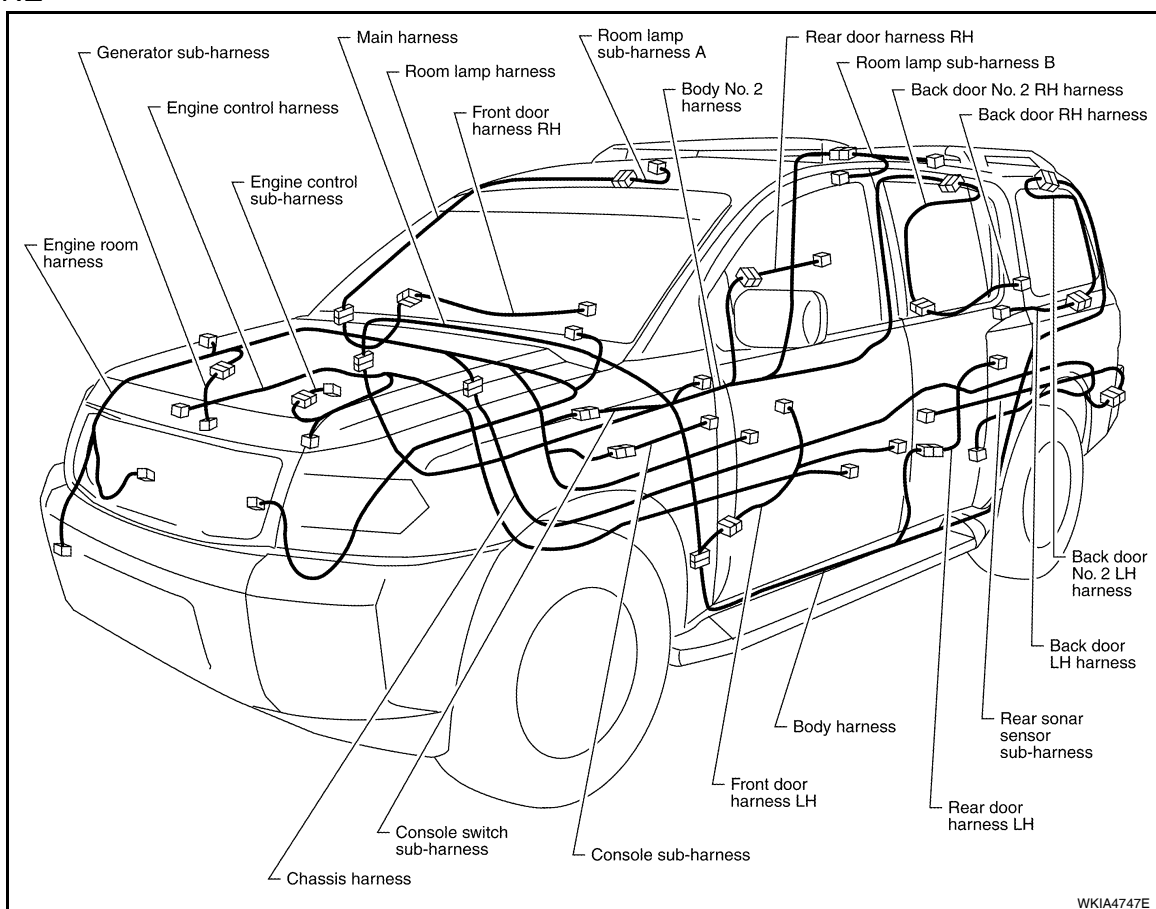
Connector color/Cavity

Connector number

Grid reference

SEL252V

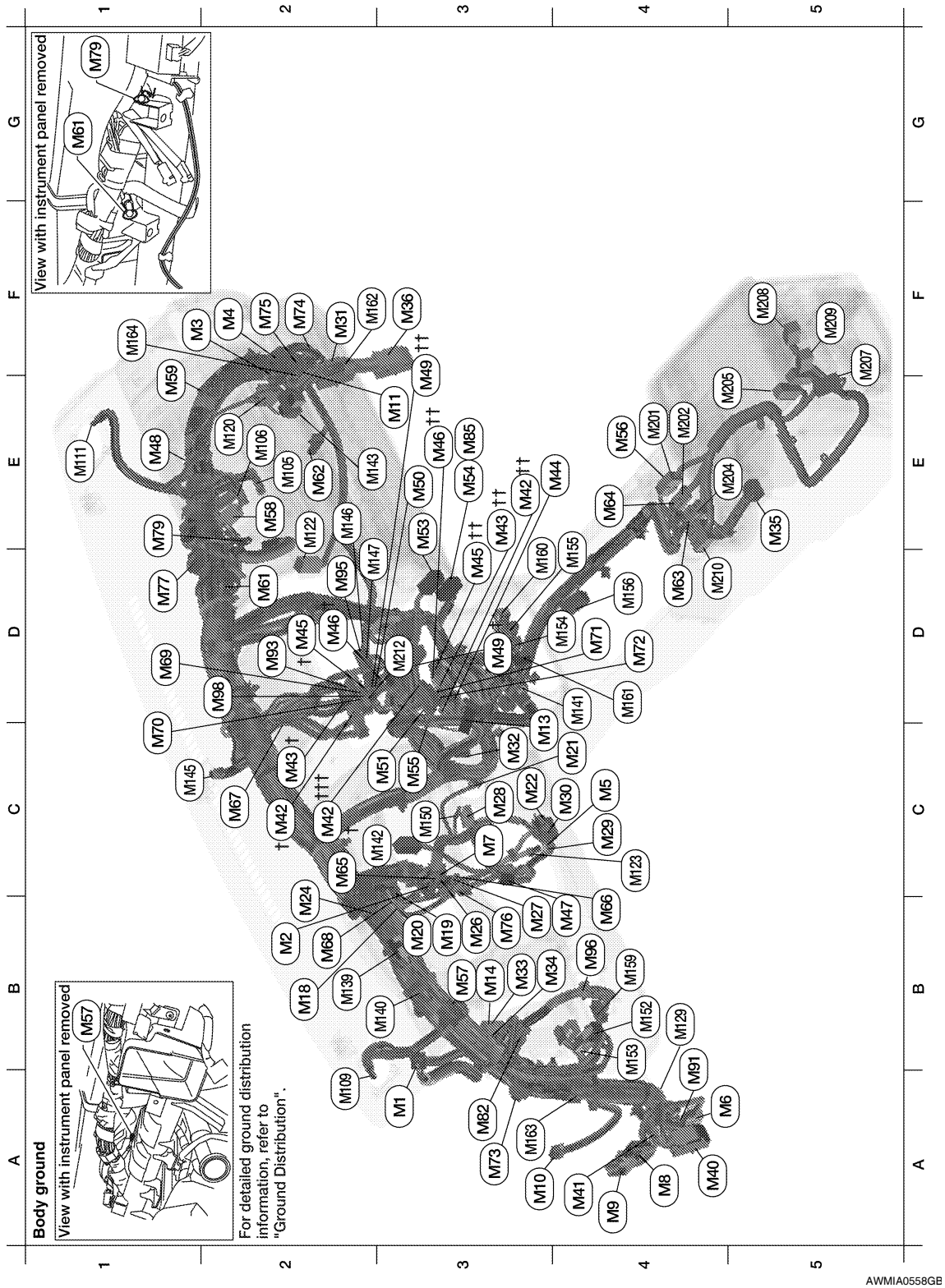
OUTLINE



HARNESS

< COMPONENT DIAGNOSIS >

MAIN HARNESS



A3	M1	W/24	: To R1	C4	M66	GR/6	: Key switch and ignition knob switch
B2	M2	L/4	: Heated steering relay	C2	M67	W/4	: Remote keyless entry
F1	M3	W/8	: Fuse block (J/B)	B2	M68	GR/2	: Inside key antenna 1 (instrument panel)
F2	M4	W/16	: Fuse block (J/B)	D1	M69	W/12	AV control unit

HARNESS

< COMPONENT DIAGNOSIS >

C4	M5	W/2	Combination switch (heated steering)	C1	M70	W/32	: AV control unit (without NAVI)
A5	M6	W/18	: To E10	D4	M71	V/1	: AV control unit
C3	M7	B/5	: Heated steering wheel switch	D4	M72	GR/2	: AV control unit
A4	M8	BR/12	: To D2	D3	M73	BR/1	: To M350
A4	M9	BR/24	: To D1	F2	M74	BR/16	: To D102
A3	M10	Y/4	: To E29	F2	M75	W/12	: To D101
E3	M11	B/5	: Passenger select unlock relay	B3	M76	W/6	: Electric brake (pre-wiring)
C3	M13	BR/3	: Front passenger air bag OFF indicator	D1	M77	Y/4	: Front passenger air bag module (service replacement)
B3	M14	W/16	: Pedal adjusting control unit	E1	M79	—	: Body ground
B2	M18	W/40	: BCM (body control module)	A3	M82	W/2	: Circuit breaker-2
B3	M19	W/15	: BCM (body control module)	G4	M85	W/4	: Aux in jack
B3	M20	B/15	: BCM (body control module)	B4	M91	W/16	: To E26
C4	M21	W/4	: NATS antenna amp.	D2	M93	W/24	: Display unit
C3	M22	W/16	: Data link connector	D2	M95	W/40	: AV control unit
B2	M24	W/12	: Combination meter	B4	M96	BR/6	: Pedal adjusting switch
B3	M26	W/6	: Ignition switch	D2	M98	W/16	: A/C and AV switch assembly
B2	M27	W/4	: Key switch	F2	M105	Y/2	: Front passenger air bag module
C3	M28	W/16	: Combination switch	F2	M106	O/2	: Front passenger air bag module
C4	M29	Y/6	: Combination switch (spiral cable)	A2	M109	BR/2	: Front tweeter LH
C4	M30	GR/8	: Combination switch (spiral cable)	E2	M111	BR/2	: Front tweeter RH
F2	M31	SMJ	: To E152	E2	M120	W/4	: Remote keyless entry receiver
C3	M32	W/4	: In-vehicle sensor	E2	M122	W/4	: Variable blower control (with ATC)
B3	M33	W/32	: Automatic drive position control unit	E2	M122	W/4	: Front blower motor resistor (with MTC)
B4	M34	W/16	: Automatic drive position control unit	C4	M123	W/2	: Tire pressure warning check connector
E5	M35	Y/28	: Air bag diagnosis sensor unit	B4	M129	W/1	: Satellite radio tuner or pre-wiring for Satellite radio tuner
F3	M36	SMJ	: To B149	B2	M139	B/2	: Diode-1
A4	M40	SMJ	: To B69	B3	M140	B/2	: Diode-2
A4	M41†	W/16	: Pre-wiring for satellite radio tuner	C2	M142	B/6	: Mode door motor (front) (with ATC)
A4	M41	W/16	: Satellite radio tuner	C2	M142	B/6	: Mode door motor (with MTC)
C2	M42	W/20	: Audio unit	E3	M143	B/6	: Air mix door motor (passenger)
E3	M42	W/20	: AV control unit (with NAVI)	C1	M145	B/4	: Optical sensor
E3	M42	W/20	: AV control unit (without NAVI)	E3	M146	GR/2	: Intake sensor
D2	M43	W/12	: AV control unit (without NAVI)	D2	M147	B/6	: Air mix door motor (driver) (with ATC)
E3	M43	W/12	: AV control unit (with NAVI)	D2	M147	B/6	: Air mix door motor (front) (with MTC)
D2	M44	W/3	: AV control unit	C3	M150	W/2	: Ignition keyhole illumination
D2	M45	W/28	: AV control unit (without NAVI)	B4	M152	W/26	: Transfer case control unit (part time 4WD)
D3	M45	W/32	: AV control unit (with NAVI)	B4	M152	W/24	: Transfer case control unit (all-mode 4WD)
D2	M46	W/16	: AV control unit (without NAVI)	B4	M153	W/24	: Transfer case control unit (all-mode 4WD)
D2	M46	W/40	: AV control unit (with NAVI)	B4	M153	W/26	: Transfer case control unit (part time 4WD)
B4	M47	W/8	: Steering angle sensor	D4	M154	GR/8	: VDC off switch
E1	M48	GR/3	: To M501	D4	M155	W/8	: HDC off switch

A

B

C

D

E

F

G

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K

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PG

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O

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HARNESS

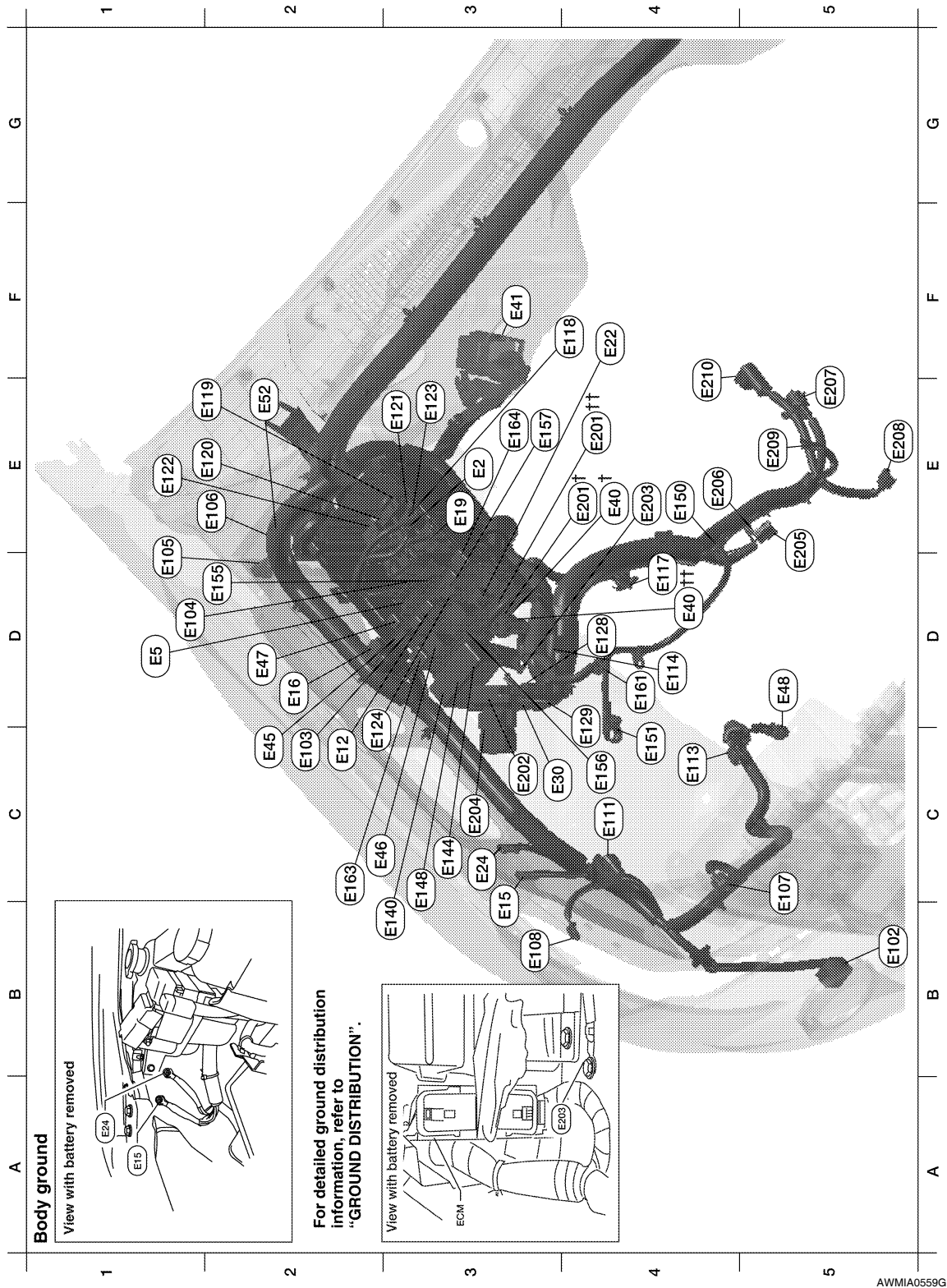
< COMPONENT DIAGNOSIS >

D2	M49	B/26	: Front air control (with manual A/C)	D4	M156	W/10	: A/T device
D3	M49	B/26	: A/C auto AMP (with automatic A/C)	B4	M159	W/16	: Door mirror remote control switch
D2	M50	L/26	: A/C auto AMP	D3	M160	BR/6	: Front heated seat switch RH
C3	M51	W/8	: Front blower switch	D4	M161	BR/6	: Front heated seat switch LH
D3	M53	B/3	: Lower front power socket	F2	M162	W/2	: To B131
E3	M54	B/3	: Upper front power socket	D4	M166	W/40	: Intelligent key unit
C3	M55	W/4	: Hazard switch	Console sub-harness			
E4	M56	W/16	: To M201	E4	M201	W/16	: To M56
B3	M57	—	: Body ground	E4	M202	W/6	: To M64
E2	M58	B/6	: Intake door motor	E4	M204	W/6	: To M63
E1	M59	BR/2	: Glove box lamp	E4	M205	W/32	: DVD player
D2	M61	—	: Body ground	F5	M207	B/3	: Console power socket
E2	M62	B/2	: Front blower motor	F5	M208	B/10	: Rear air control
D4	M63	W/6	: To M204	F5	M209	B/10	: Rear air control (rear)
D4	M64	W/6	: To M202	D4	M210	W/18	: To B77
C2	M65	W/4	: Steering lock solenoid	D3	M212	GR/2	: Inside key antenna 2 (center console)

HARNESS

< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS (RH VIEW)



Refer to "ENGINE ROOM HARNESS (LH VIEW)" for continuation of engine room harness"

E3	E2	W/16	: To F32	D4	E129	—	: Fusible link box (battery)
D1	E5	W/24	: To F14	B3	E140	BR/6	: Trailer tow relay 2
C2	E12	L/4	: Stop lamp relay	C3	E144	L/4	: Heater pump relay
C3	E15	—	: Body ground	C3	E148	L/4	: Trailer tow relay 1
D2	E16	B/40	: ECM	D2	E155	L/4	: Transfer shut off relay (all mode 4WD)

HARNESS

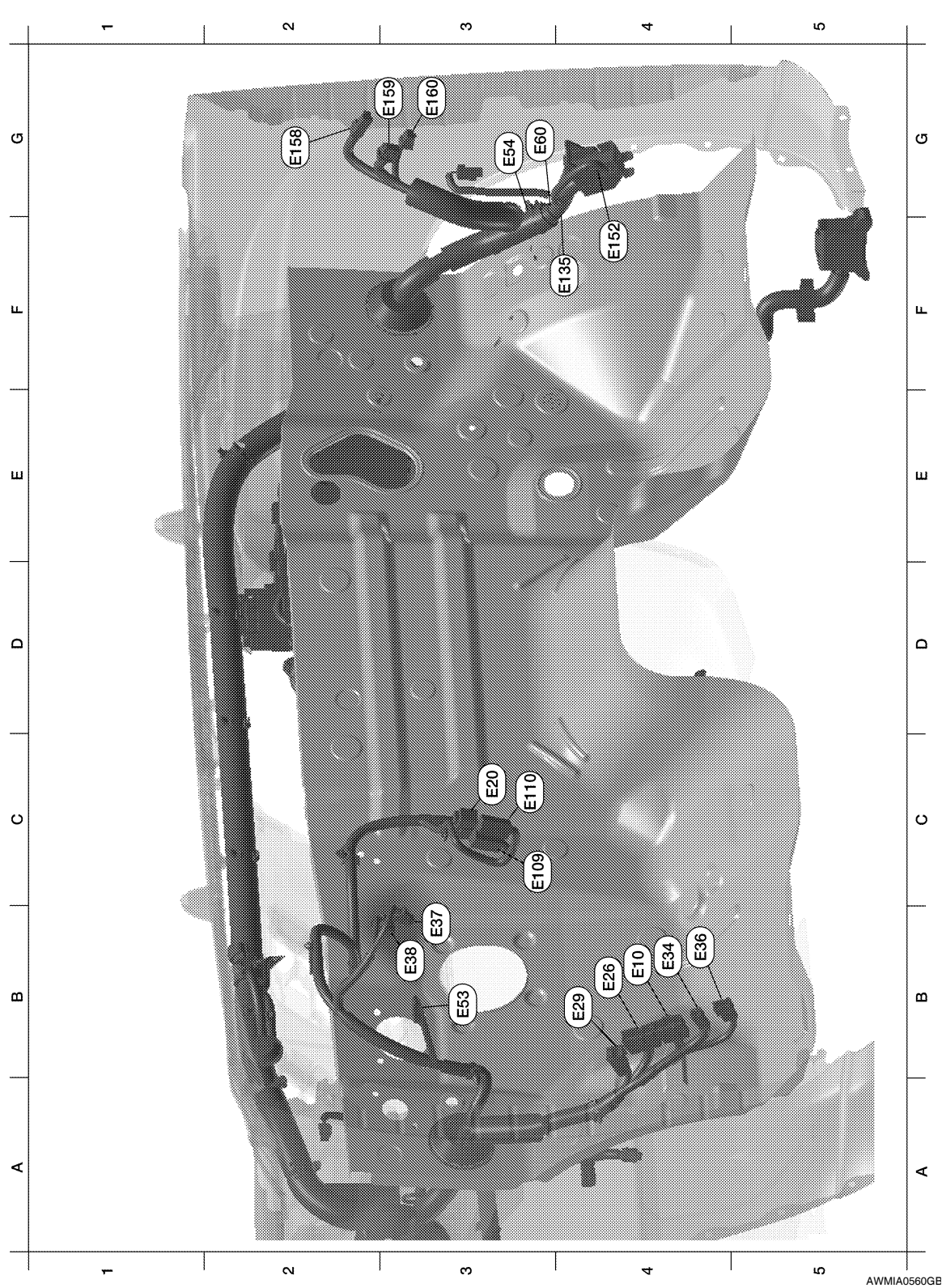
< COMPONENT DIAGNOSIS >

D1	E19	W/16	: To F33	C4	E156	L/4	: Transfer shut off relay 1 (part-time 4WD)
F4	E22	GR/6	: Front blower relay	E3	E157	L/4	: Transfer shut off relay 2 (part-time 4WD)
C3	E24	—	: Body ground	D4	E161	B/3	: Battery current sensor
C3	E30	—	: Fusible link box (battery)	B4	E162	B/3	: Front sonar sensor RH inner
E4	E40	GR/9	: To E201 (with VQ40DE)	C2	E163	L/4	: Trailer turn relay LH
D4	E40	B/4	: To E201 (with VK56DE)	E3	E164	L/4	: Trailer turn relay RH
D3	E41	SMJ	: To C1 (located RH rear of engine compartment)	Generator sub-harness			
C2	E45	BR/6	: Back-up lamp relay	E4	E201	GR/9	: To E40 (with VQ40DE)
C2	E46	B/5	: Transfer shift high relay	C3	E201	B/4	: To E40 (with VK56DE)
D2	E47	B/5	: Transfer shift low relay	D5	E202	—	: Fusible link box (battery)
D5	E48	B/3	: Refrigerant pressure sensor	E4	E203	—	: Body ground
B5	E102	B/2	: Front fog lamp RH	E4	E204	—	: Fusible link box (battery)
C2	E103	B/5	: Daytime light relay 1	D5	E205	B/3	: Generator
D1	E104	L/4	: Daytime light relay 2	E5	E206	—	: Generator
D1	E105	B/2	: Front and rear washer motor	F5	E207	GR/1	: Starter motor
E2	E106	BR/2	: Washer fluid level switch	D5	E208	GR/1	: Oil pressure switch
C5	E107	B/3	: Front headlamp RH	E5	E209	—	: Generator
B3	E108	GR/2	: Front side marker lamp RH	F5	E210	B/2	: Starter motor
C4	E111	GR/3	: Front combination lamp RH				
C4	E113	GR/4	: Cooling fan motor				
D4	E114	B/6	: Delta stroke sensor				
D4	E117	GR/2	: Front wheel sensor RH				
F4	E118	B/2	: IPDM E/R (intelligent power distribution module engine room)				
F2	E119	W/18	: IPDM E/R (intelligent power distribution module engine room)				
E2	E120	W/6	: IPDM E/R (intelligent power distribution module engine room)				
E3	E121	BR/12	: IPDM E/R (intelligent power distribution module engine room)				
E1	E122	W/12	: IPDM E/R (intelligent power distribution module engine room)				
C1	E123	BR/8	: IPDM E/R (intelligent power distribution module engine room)				
D1	E124	W/6	: IPDM E/R (intelligent power distribution module engine room)				
D4	E128	GR/2	: Fusible link box (battery)				

HARNESS

< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS (PASSENGER COMPARTMENT)



B4	E10	W/8	: To M6				
C3	E20	B/8	: Accelerator pedal position (APP) sensor				
B4	E26	W/16	: To M91				
B4	E29	Y/4	: To M10				

HARNESS

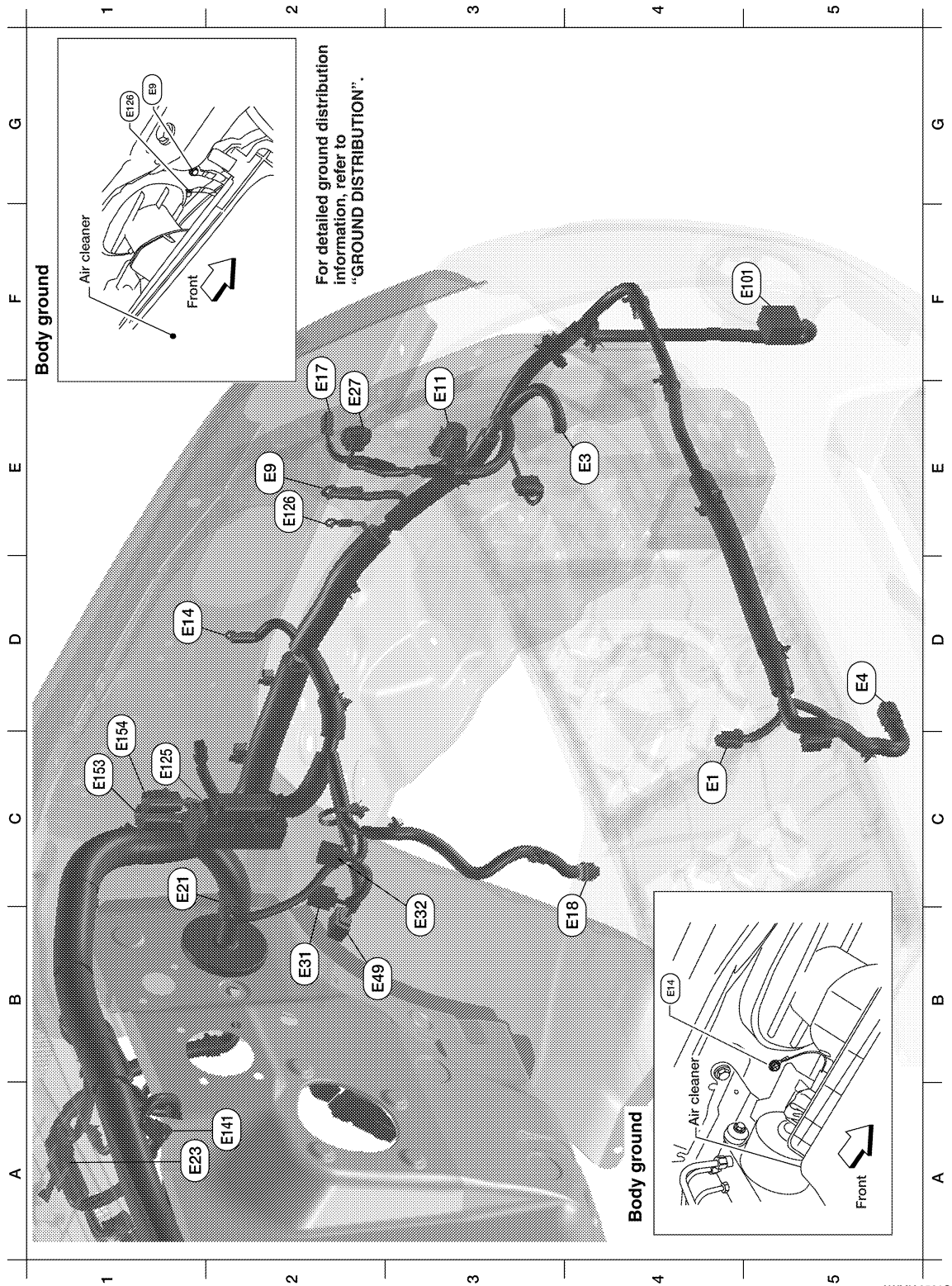
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B4	E34	W/8	: To B40				
B4	E36	W/2	: To B42				
B3	E37	BR/2	: ASCD brake switch				
B3	E38	W/4	: Stop lamp switch				
B3	E53	B/1	: Parking brake switch				
G3	E54	BR/6	: Front blower motor relay				
G3	E60	BR/3	: Intelligent key warning buzzer				
C3	E109	W/2	: Pedal adjusting motor (with automatic drive positioner)				
C3	E109	GR/2	: Pedal adjusting motor				
C3	E110	B/4	: Pedal adjusting motor (with automatic drive positioner)				
F4	E135	GR/2	: Transfer dropping resistor				
F4	E152	SMJ	: To M31				
G2	E158	—	: Fusible link box (battery)				
G3	E159	—	: Fusible link box (battery)				
G3	E160	—	: Fusible link box (battery)				

HARNESS

< COMPONENT DIAGNOSIS >

ENGINE ROOM HARNESS (LH VIEW)



Refer to "ENGINE ROOM HARNESS (RH VIEW)" for continuation of engine room harness"

AWMIA0561GB

C4	E1	B/2	: Ambient				
E4	E3	B/2	: Horn				
D5	E4	Y/2	: Crash zone sensor				
E2	E9	GR/3	: Body ground				
E3	E11	B/3	: Front headlamp LH				

HARNESS

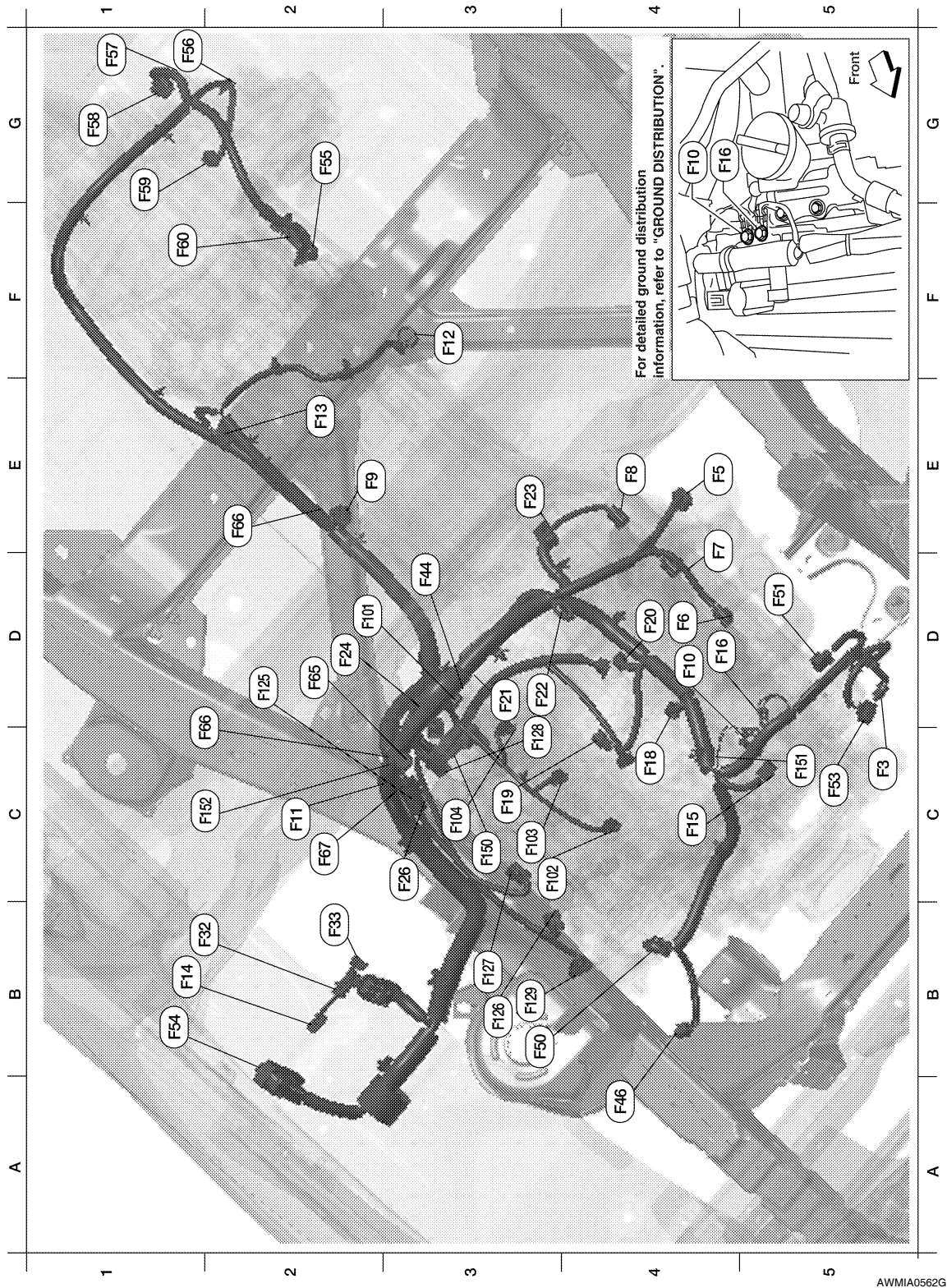
< COMPONENT DIAGNOSIS >

F2	E17	GR/2	: Front side marker lamp LH				
B4	E18	GR/2	: Front wheel sensor LH				
C1	E21	—	: Brake fluid level switch				
A1	E23	GR/5	: Front wiper motor				
E2	E27	GR/3	: Front combination lamp LH				
B2	E31	B/3	: Front pressure sensor				
C3	E32	B/3	: Rearpressure sensor				
B3	E49	B/6	: Active booster				
F5	E101	—	: Front fog lamp LH				
C1	E125	B/47	: ABS actuator and electric unit (control unit)				
A2	E141	B/2	: Heater pump				
C1	E153	W/2	: Transfer motor relay (all mode 4WD)				
C1	E154	W/2	: Transfer motor relay (all mode 4WD)				

HARNESS

< COMPONENT DIAGNOSIS >

ENGINE CONTROL HARNESS (VQ40DE)



C5	F3	B/1	: A/C Compressor	G1	F56	B/8	: Terminal cord assembly (all-mode 4WD)
E4	F5	GR/4	: Air fuel ratio (A/F) sensor 1 (bank2)	G1	F57	B/2	: Transfer motor (all-mode 4WD)
D4	F6	GR/3	: Ignition coil No. 2 (with power transistor)	G1	F58	B/8	: Terminal cord assembly (part time 4WD)

HARNESS

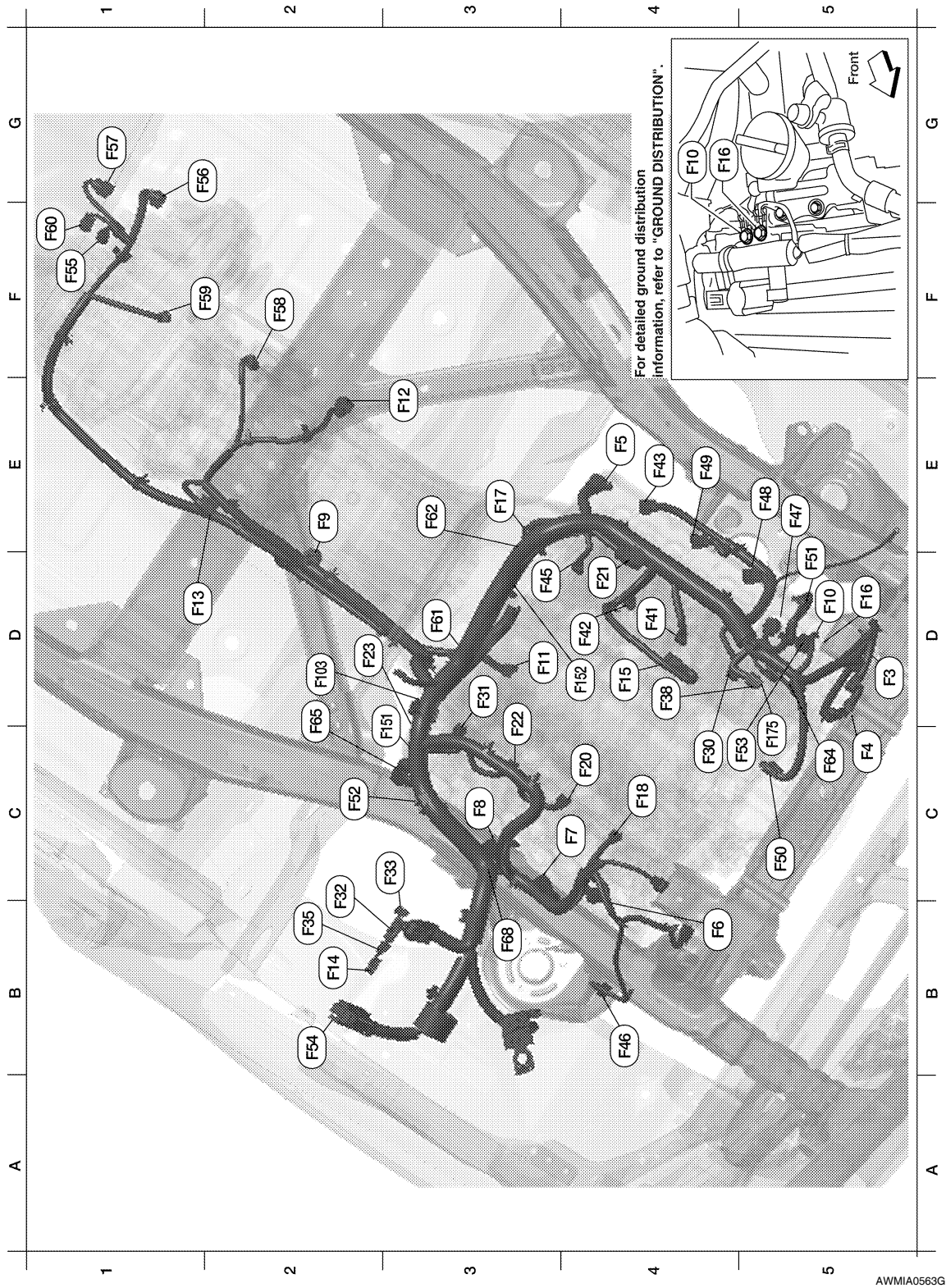
< COMPONENT DIAGNOSIS >

D4	F7	GR/3	: Ignition coil No. 4 (with power transistor)	G1	F58	B/8	: Terminal cord assembly (all-mode 4WD)
E4	F8	GR/3	: Ignition coil No. 6 (with power transistor)	F1	F59	GR/2	: Wait detection switch (part time 4WD)
E3	F9	G/10	: A/T assembly	F1	F59	B/2	: Wait detection switch (all-mode 4WD)
D4	F10	—	: Engine ground	F1	F60	GR/2	: Neutral-4LO switch (part time 4WD)
C2	F11	B/3	: Crankshaft position sensor (POS)	F1	F60	B/2	: Neutral-4LO switch (all-mode 4WD)
F3	F12	L/4	: Heated oxygen sensor 2 (bank2)	D2	F65	GR/4	: Air fuel ratio (A/F) sensor 1 (bank1)
F3	F13	G/4	: Heated oxygen sensor 2 (bank1)	D3	F66	G/3	: Camshaft position sensor (bank 1)
B1	F14	W/24	: To E5	C2	F67	L/4	: To F150
C4	F15	L/2	: EVAP canister purge volume control solenoid valve	Injector sub-harness			
D4	F16	—	: Engine ground	D2	F101	G4	: To F44
C4	F18	GR/2	: Fuel injector No. 2	B3	F102	GR/2	: Fuel injector No. 1
C3	F19	B/2	: VIAS control solenoid valve	B3	F103	GR/2	: Fuel injector No. 3
D4	F20	GR/2	: Fuel injector No. 4	C3	F104	GR/2	: Fuel injector No. 5
D3	F21	W/2	: Condenser-1	Ignition coil sub-harness			
D3	F22	GR/2	: Fuel injector No. 6	D2	F125	G/8	: To F26
B3	F23	B/3	: Camshaft position sensor (bank 2)	B3	F126	GR/3	: Ignition coil No. 6 (with power transistor)
D2	F24	GR/2	: Engine coolant temperature sensor	B3	F127	GR/3	: Ignition coil No. 6 (with power transistor)
C3	F26	G/8	: To F125	C3	F128	GR/3	: Ignition coil No. 6 (with power transistor)
B2	F32	W/16	: To E2	B3	F129	G/2	: Intake valve timing control solenoid valve (bank 1)
C2	F33	W/16	: To E19	Knock sensor sub-harness			
C2	F44	G/4	: To F101	C3	F150	L/4	: To F26
A4	F46	B/3	: Power steering pressure sensor	C5	F151	B/2	: Knock sensor (bank 1)
B3	F50	B/6	: Electric throttle control actuator	C2	F152	B/2	: Knock sensor (bank 2)
D5	F51	GR/3	: Intake valve timing control solenoid valve (bank 2)				
C5	F53	B/6	: Mass air flow sensor				
B1	F54	B/81	: ECM				
G2	F55	B/2	: ATP switch (all-mode 4WD)				
G2	F55	B/2	: ATP switch (part time 4WD)				

HARNESS

< COMPONENT DIAGNOSIS >

ENGINE CONTROL HARNESS (VK56DE)



D5	F3	B/1	: A/C Compressor	C2	F52	GR/3	: Ignition coil No. 8 (with power transistor)
C5	F4	GR/1	: Oil pressure switch	C4	F53	B/6	: Mass air flow sensor
E4	F5	GR/4	: Air fuel ratio (A/F) sensor 1 (bank2)	B2	F54	B/81	: ECM
C4	F6	GR/3	: Ignition coil No. 2 (with power transistor)	F1	F55	B/2	: ATP switch (all-mode 4WD)

HARNESS

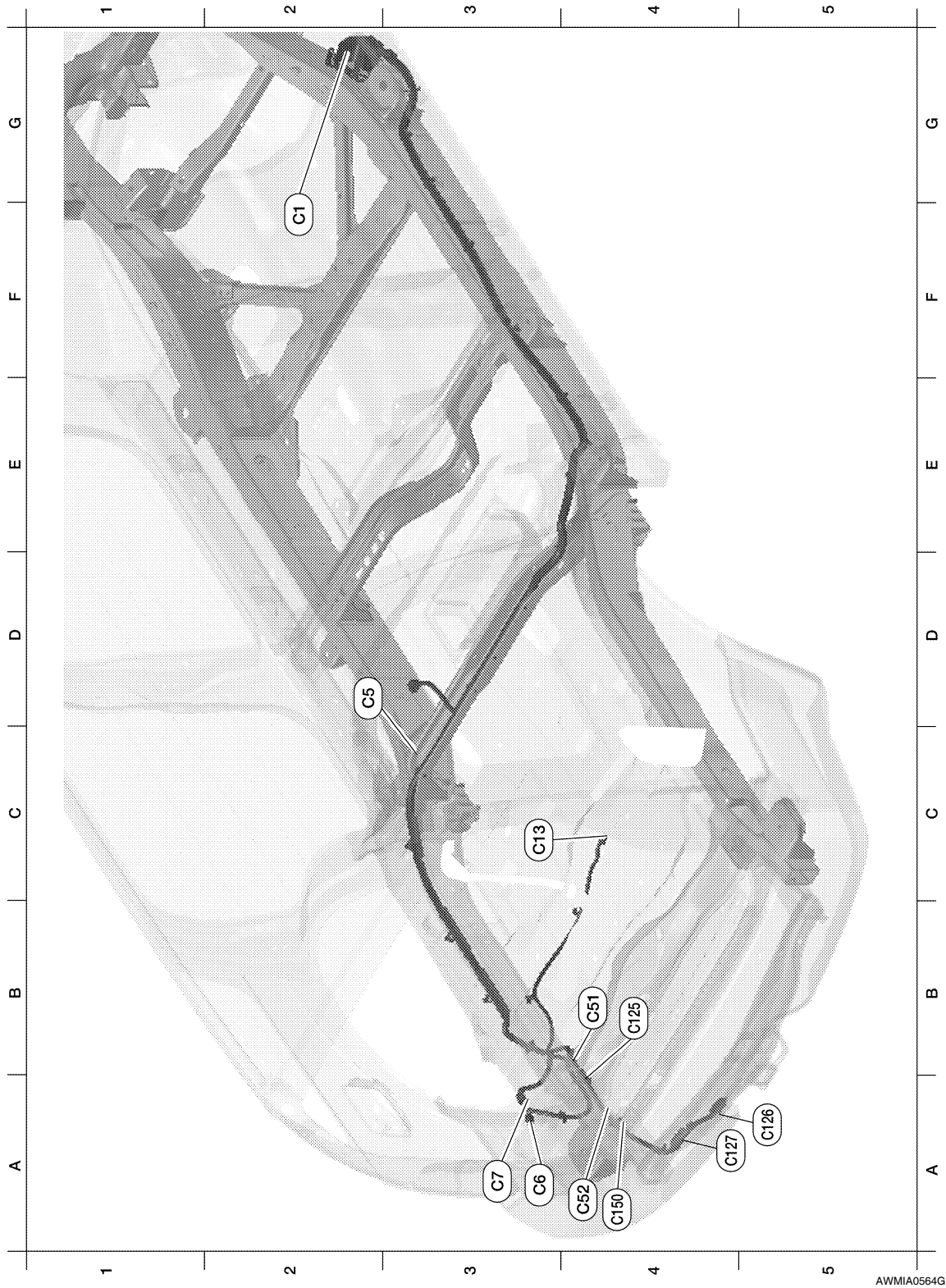
< COMPONENT DIAGNOSIS >

C4	F7	GR/3	: Ignition coil No. 4 (with power transistor)	F1	F55	B/2	: ATP switch (part time 4WD)
C3	F8	GR/3	: Ignition coil No. 6 (with power transistor)	G2	F56	B/8	: Transfer terminal cord assembly (all-mode 4WD)
E2	F9	G/10	: A/T assembly	G1	F57	B/2	: Transfer motor (all-mode 4WD)
D5	F10	—	: Engine ground	F2	F58	B/8	: Transfer control device (part time 4WD)
D3	F11	B/3	: Crankshaft position sensor (POS)	F2	F58	GR/6	: Transfer control device (all-mode 4WD)
E3	F12	G/4	: Heated oxygen sensor 2 (bank2)	F2	F59	GR/2	: Wait detection switch (part time 4WD)
D1	F13	G/4	: Heated oxygen sensor 2 (bank1)	F2	F59	B/2	: Wait detection switch (all-mode 4WD)
B2	F14	W/24	: To E5	F1	F60	GR/2	: Neutral-4LO switch (all-mode 4WD)
C4	F15	L/2	: EVAP canister purge volume control solenoid valve	F1	F60	GR/2	: Neutral-4LO switch (part time 4WD)
D5	F16	—	: Engine ground	C5	F64	B/3	: Intake valve timing control position sensor (bank 2)
E3	F17	GR/1	: Starter motor	D2	F65	GR/4	: Air fuel ratio (A/F) sensor 1 (bank1)
C4	F18	GR/2	: Fuel injector No. 2	B3	F68	GR/2	: Water valve
C4	F20	GR/2	: Fuel injector No. 4	D2	F103	GR/2	: Engine coolant temperature sensor
D4	F21	W/2	: Condenser-1	Knock sensor sub-harness			
D3	F22	GR/2	: Fuel injector No. 6	C3	F151	B/2	: Knock sensor (bank 1)
D2	F23	B/3	: Camshaft position sensor (PHASE)	D3	F152	B/2	: Knock sensor (bank 2)
C4	F30	GR/2	: Fuel injector No. 1	C5	F175	B/6	: To F38
D3	F31	GR/2	: Fuel injector No. 8				
C2	F32	W/16	: To E2				
C3	F33	W/16	: To E19				
B2	F35	W/2	: To E52				
D4	F38	B/6	: To F175				
D4	F41	GR/2	: Fuel injector No. 3				
D4	F42	GR/2	: Fuel injector No. 5				
E4	F43	GR/3	: Ignition coil No. 7 (with power transistor)				
D3	F45	GR/2	: Fuel injector No. 7				
B4	F46	B/3	: Power steering pressure sensor				
E4	F47	GR/3	: Ignition coil No. 1 (with power transistor)				
E4	F48	GR/3	: Ignition coil No. 3 (with power transistor)				
E4	F49	GR/3	: Ignition coil No. 5 (with power transistor)				
C5	F50	B/6	: Electric throttle control actuator				
D5	F51	G/2	: Intake valve timing control position sensor (bank 2)				

HARNESS

< COMPONENT DIAGNOSIS >

CHASIS HARNESS



AWMIA0564GB

F2	C1	SMJ	: To E41				
D2	C5	GR/5	: Fuel level sensor unit and fuel pump				
A3	C6	B/2	: Evap canister vent control valve				
A3	C7	GR/3	: EVAP control system pressure sensor				
C4	C13	GR/4	: Rear wheel sensor assembly				

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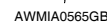
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HARNESS

< COMPONENT DIAGNOSIS >

B4	C51	GR/8	: To C125				
A4	C52	B/2	: To C150				
Trailer sub-harness							
B4	C125	GR/8	: To C51				
A5	C126	B/7	: Trailer (7-pin)				
A5	C126	B/4	: Trailer (4-pin)				
A4	C127	GR/2	: Rear bumper antenna				
C3	C150	B/2	: C52				

BODY HARNESS

2008 Pathfinder

HARNESS

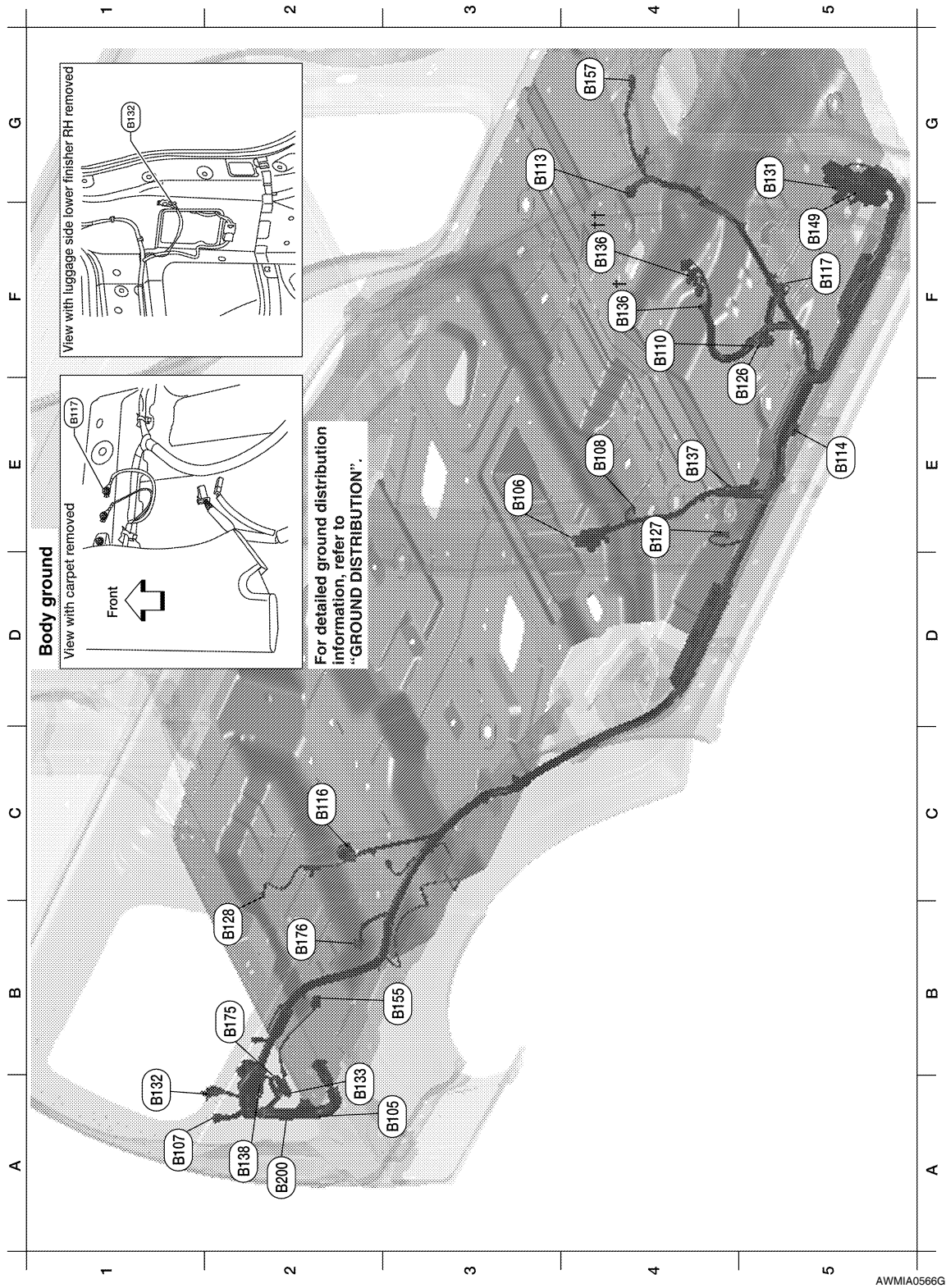
< COMPONENT DIAGNOSIS >

B4	B12	W/3	: Seat belt buckle switch LH				
D5	B14	Y/2	: Front LH seat belt pre-tensioner				
C5	B15	Y/2	: LH side air bag (satellite) sensor				
F3	B18	W/3	: Rear door switch LH				
G2	B19	—	: Body ground				
B4	B32	W/6	: To B124				
G3	B35	W/6	: Rear combination lamp LH				
B4	B37	W/16	: To B200 (without automatic drive positioner)				
B4	B37	W/16	: To B200				
B2	B38	Y/2	: LH side front curtain air bag module				
A4	B40	W/8	: To E34				
A4	B41	W/12	: To E35				
B5	B42	W/2	: To E36				
G1	B43	W/8	: To D401				
G2	B48	W/6	: To D402				
F2	B54	Y/2	: LH side rear curtain air bag module				
A5	B69	SMJ	: To M40				
E3	B72	W/8	: Subwoofer (with BOSE audio system)				
B3	B73	B/6	yaw rate/side/decel G sensor				
B4	B74	GR/8	: BOSE speaker amp				
C4	B75	B/24	: BOSE speaker amp				
C1	B76	W/16	: Video monitor				
B4	B77	W/18	: To M210				
B4	B78	Y/2	: To B157				
B2	B80	W/2	: Vanity lamp LH				
A1	B81	W/2	: Vanity lamp RH				
A1	B82	Y/2	: RH side frony curtain air bag module				
B2	B83	B/10	: Sunroof motor assembly				

HARNESS

< COMPONENT DIAGNOSIS >

BODY NO. 2 HARNESS



A3	B105	W/6	: Rear combination lamp RH				
E3	B106	W/12	: To D301				
A1	B107	W/8	: To D450				
E4	B108	W/3	: Front door switch RH				
F4	B110	W/3	: Seat belt buckle switch RH				

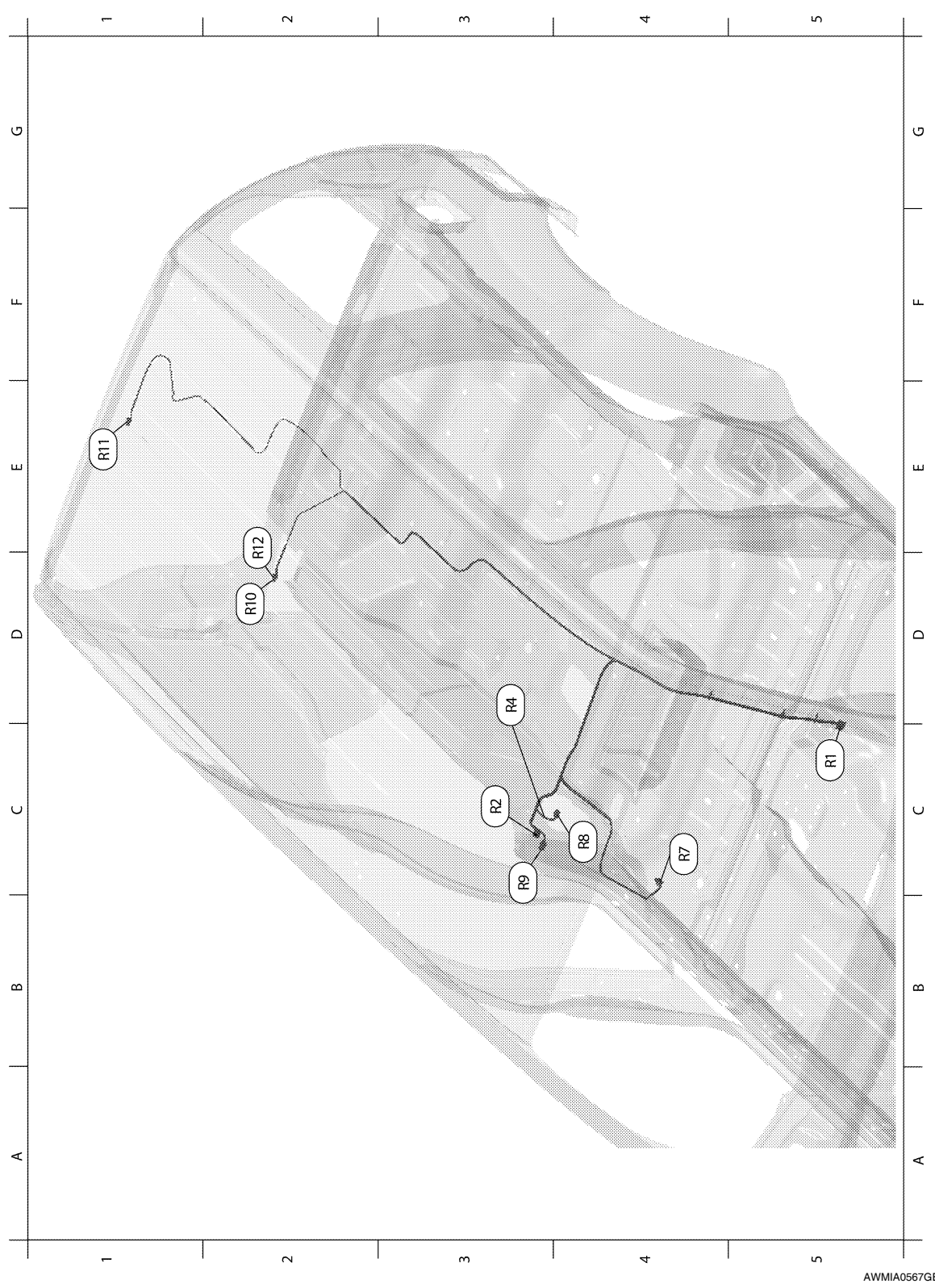
HARNESS

< COMPONENT DIAGNOSIS >

G3	B113	Y/12	: Air bag diagnosis sensor unit				
E5	B114	Y/2	: RH side air bag (satellite) sensor				
C2	B116	W/3	: Rear door switch RH				
F5	B117	—	: Body ground				
F4	B126	Y/2	: Front RH side air bag module				
E4	B127	Y/2	: Front RH seat belt pre-tensioner				
B2	B128	Y/2	: RH side rear curtain air bag module				
A4	B131	W/2	: To M162				
A1	B132	—	: Body ground				
A2	B133	W/4	: Variable blower control (rear)				
E4	B136	W/16	: To B351 (with power seat)				
E4	B136	W/8	: To B351 (without power seat)				
E4	B137	W/3	: Belt tension sensor				
A2	B138	B/3	: Rear cargo power socket				
F5	B149	SMJ	: To M36				
B3	B155	B/6	: Air mix door motor (rear)				
G4	B157	Y/2	: B78				
A5	B175	W/20	: To B500				
B2	B176	W/16	: Rear view camera control unit				
A2	B200	W/6	: To B37				

HARNESS

< COMPONENT DIAGNOSIS >
ROOM LAMP HARNESS



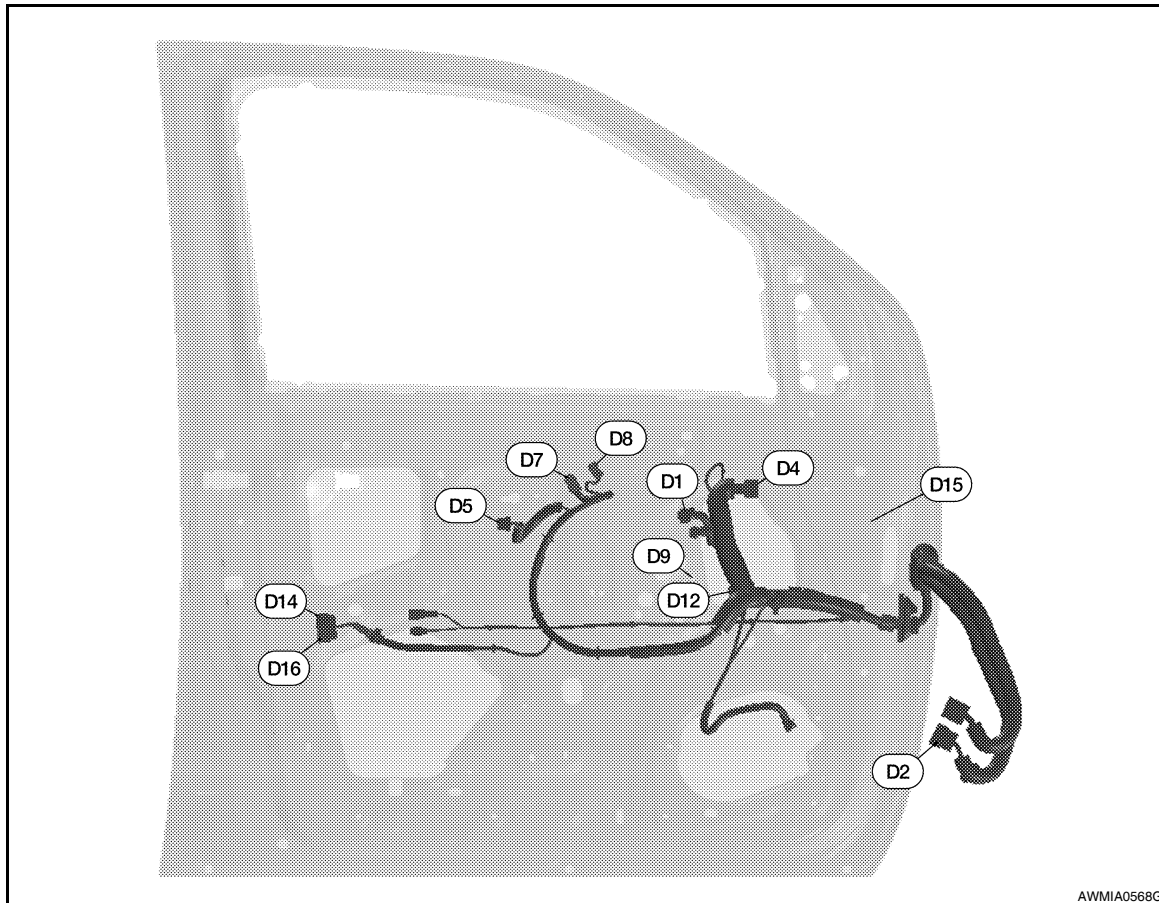
C5	R1	W/24	: To M1	C4	R8	W/4	: Microphone
C3	R2	B/10	: Rear air control (front)	C3	R9	W/3	: Front room/map lamp assembly
D3	R4	W/3	: Sunroof switch	D3	R10	W/3	: Personal lamp 2nd row

HARNESS

< COMPONENT DIAGNOSIS >

C4	R7	GR/10	: Auto anti-dazzling inside mirror (without HOMELINK® universal transceiver	E1	R11	W/2	: Cargo lamp
C4	R7	GR/10	: Auto anti-dazzling inside mirror (without HOMELINK® universal transceiver	E3	R12	W/3	: Room lamp 2nd row

FRONT DOOR LH HARNESS

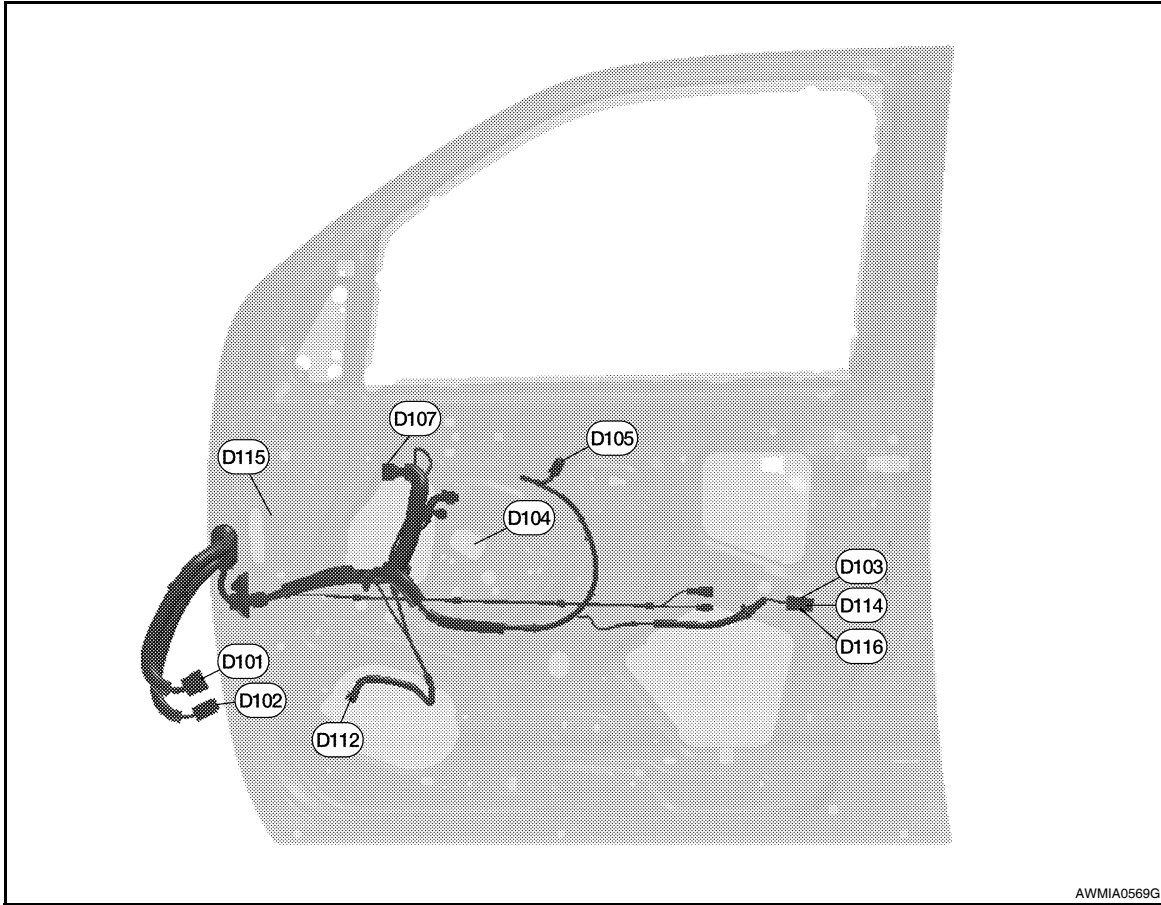


D1	W/24	: To M9	D8	W/3	: Main power window and door lock/unlock switch
D2	BR/12	: To M8	D9	B/6	: Front power window motor LH
D4	B/10	: Door mirror LH (with heated mirrors)	D12	W/2	: Front door speaker LH
D4	B/3	: Door mirror LH (without heated mirrors)	D14	GR/6	: Front door lock assembly LH
D5	W/8	: Seat memory switch	D15	GR/2	: Front outside antenna LH
D7	W/16	: Main power window and door lock/unlock switch	D16	GR/2	: Front door request switch LH

HARNESS

< COMPONENT DIAGNOSIS >

FRONT DOOR RH HARNESS

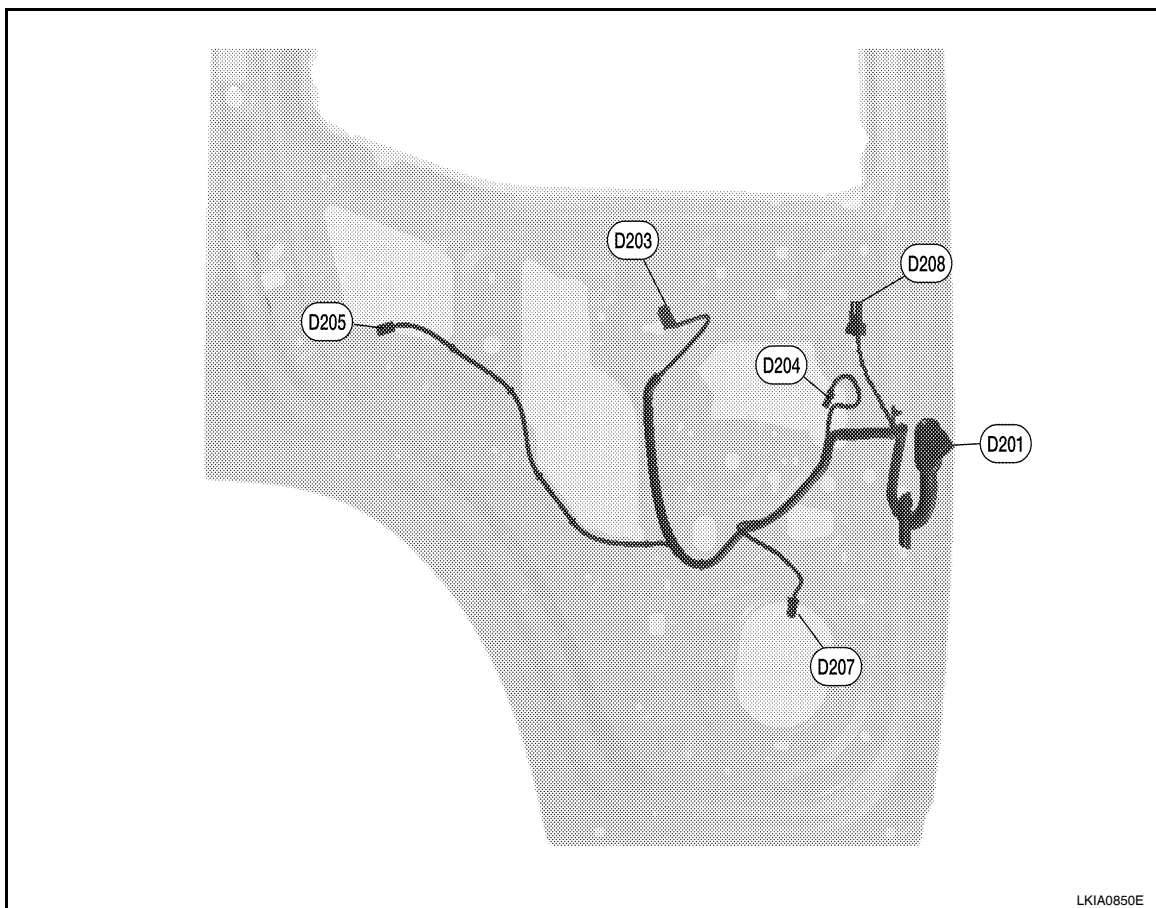


D101	W/10	: To M75	D107	B/10	: Door mirror RH (with heated mirrors)
D102	BR/20	: To M74	D109	W/2	: Front step lamp RH
D103	B/3	: Front door lock actuator RH (door lock sensor)	D112	W/2	: Front door speaker RH
D104	B/6	: Front power window motor RH	D114	B/6	: Front door lock actuator RH
D105	W/16	: Power window and door lock/unlock switch RH	D115	GR/2	: Front outside antenna RH
D107	B/3	: Door mirror RH (without heated mirrors)	D116	GR/2	: Front door request switch RH

HARNESS

< COMPONENT DIAGNOSIS >

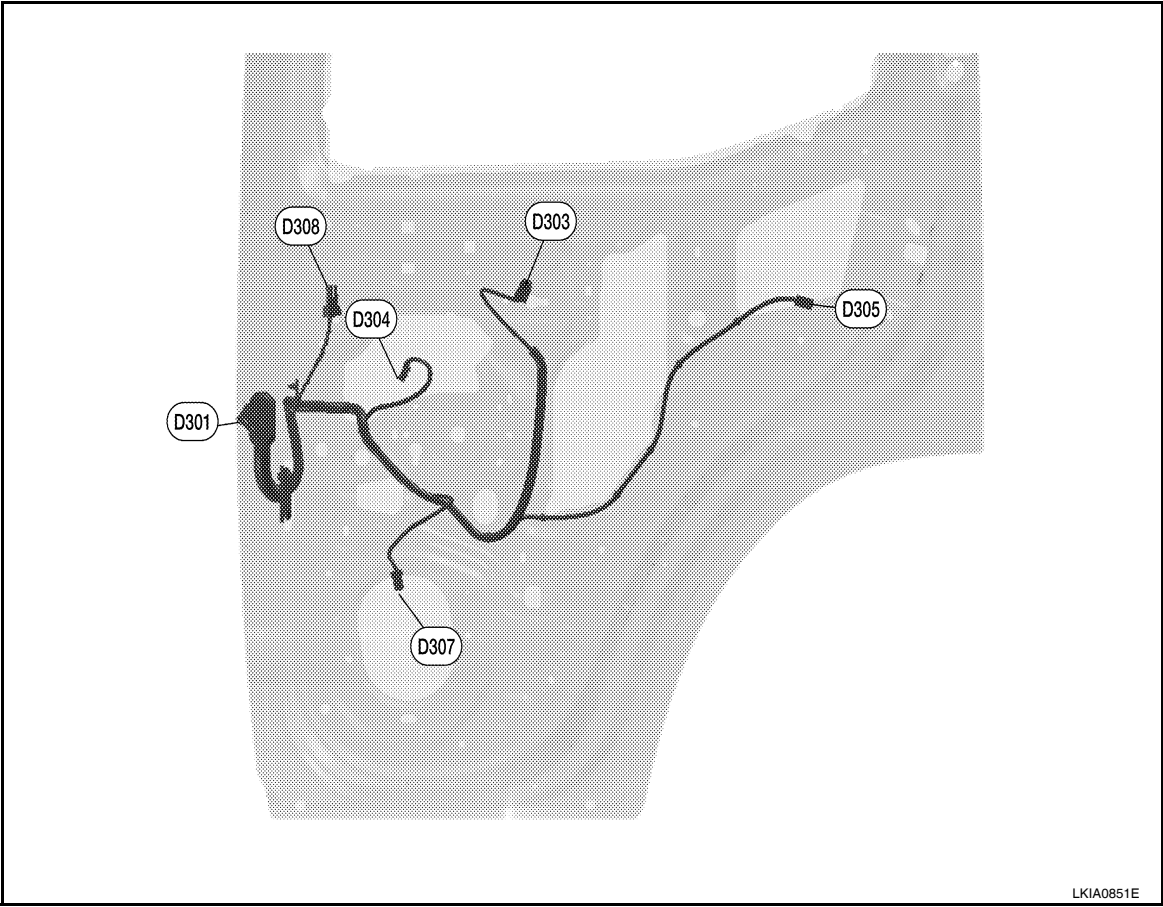
REAR DOOR LH HARNESS



D201	W/18	: To B6	D207	W/2	: Rear door speaker LH (without BOSE)
D203	W/8	: Rear power window switch LH	D207	BR/2	: Rear door speaker LH (with BOSE)
D204	B/2	: Rear power window motor LH	D208	BR/2	: Rear door tweeter LH
D205	W/2	: Rear door lock actuator LH			

HARNESS

< COMPONENT DIAGNOSIS >
REAR DOOR RH HARNESS



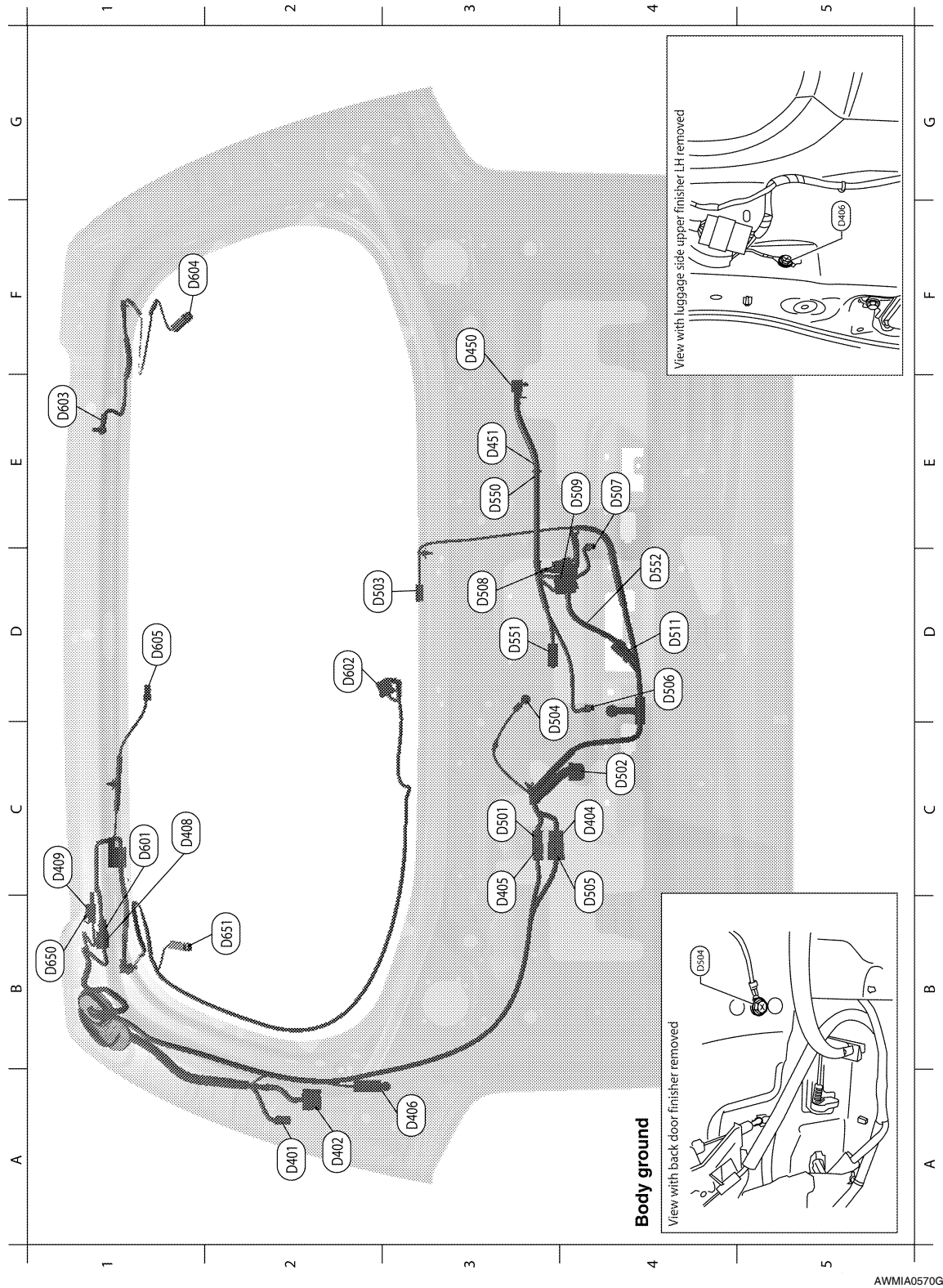
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D301	W/12	: To B106	D306	W/2	: Rear door speaker RH (without BOSE)
D303	W/8	: Rear power window switch RH	D307	BR/2	: Rear door speaker RH (with BOSE)
D304	B/2	: Rear power window motor RH	D308	BR/2	: Rear door tweeter RH
D305	W/6	: Rear door lock actuator RH			

HARNESS

< COMPONENT DIAGNOSIS >

BACK DOOR HARNESS



AWMIA0570GB

Back door No. 2 harness				C4	D505	W/4	: To D404
A2	D401	W/8	: To B43	E3	D509	W/10	: Back door control unit
A2	D402	W/6	: To B48	D4	D511	BR/2	: Back door open switch
C4	D404	W/4	: To D505	D3	D550	W/8	: To D451
B3	D405	W/18	: To D501	D3	D551	W/4	: Rear view camera

HARNESS

< COMPONENT DIAGNOSIS >

A3	D406	—	: Body ground	E4	D552	GR/2	: Back door request switch
C1	D408	W/4	: To D601	Rear window sub-harness			
C1	D409	W/1	: To D650	C2	D601	W/4	: To D408
F3	D450	W/8	: To B107	D2	D602	W/4	: Rear wiper motor
F3	D451	W/8	: To D550	E1	D603	—	: Body ground
Back door harness				F2	D604	B/1	: Rear window defogger
C3	D501	W/8	: To D405	D1	D605	W/2	: High mounted stop lamp
C4	D502	W/8	: Back door cinching latch unit	Back door LH harness			
D2	D503	B/1	: Glass hatch ajar switch	B1	D650	W/1	: To D409
D4	D504	—	: Body ground	B2	D650	B/1	: Rear window defogger

A

B

C

D

E

F

G

H

I

J

K

L

PG

N

O

P

ELECTRICAL UNITS LOCATION

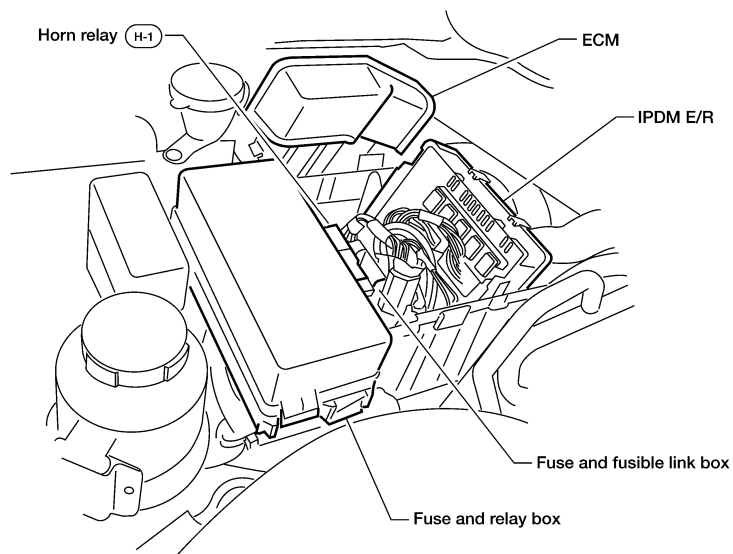
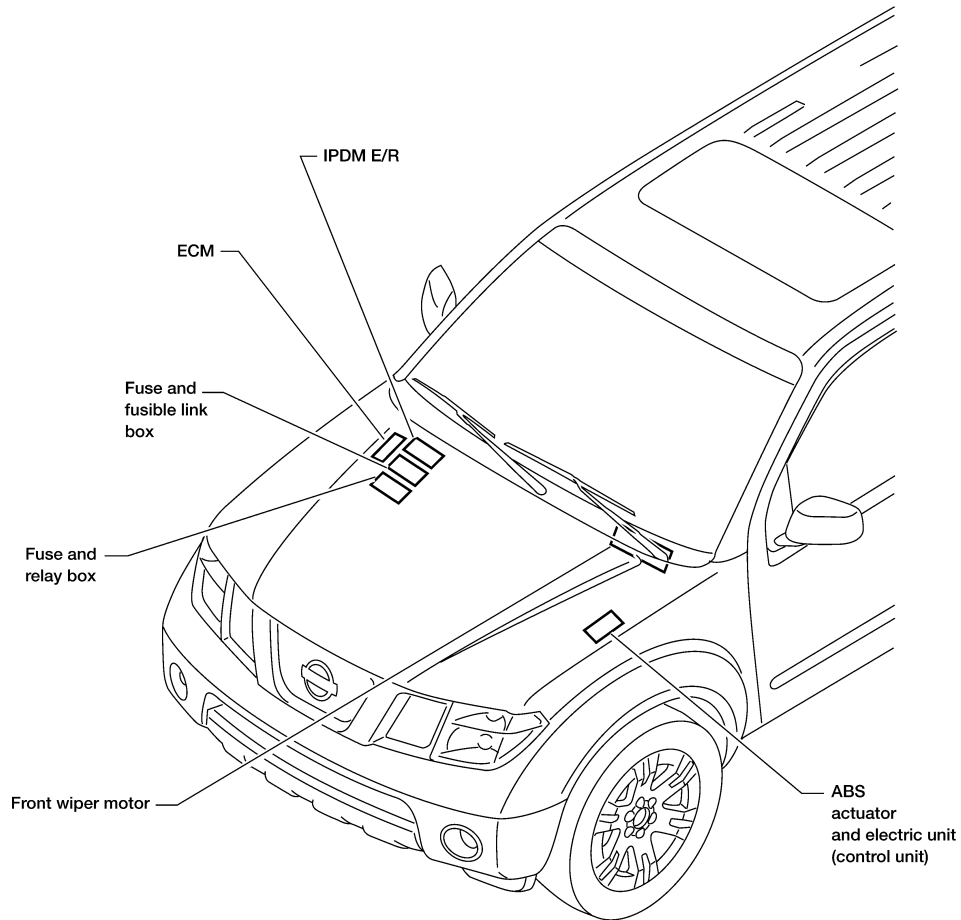
< COMPONENT DIAGNOSIS >

ELECTRICAL UNITS LOCATION

Electrical Units Location

INFOID:000000001731014

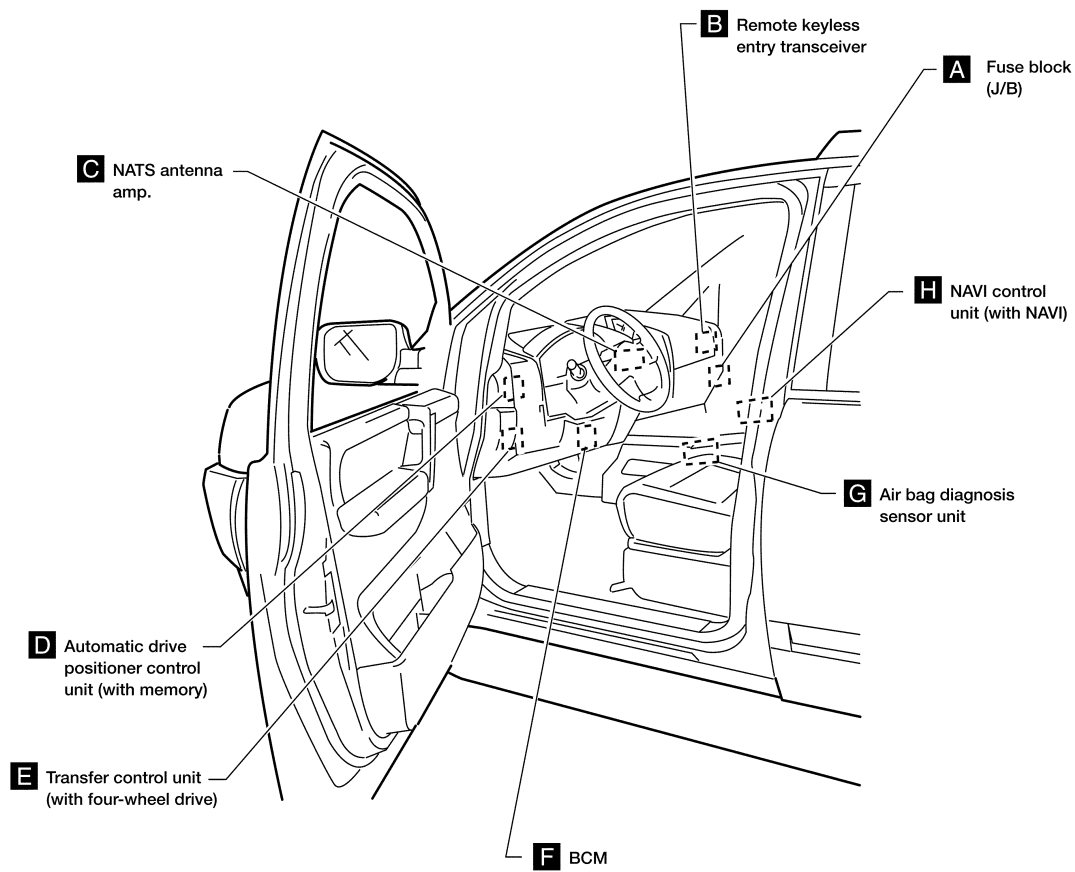
ENGINE COMPARTMENT



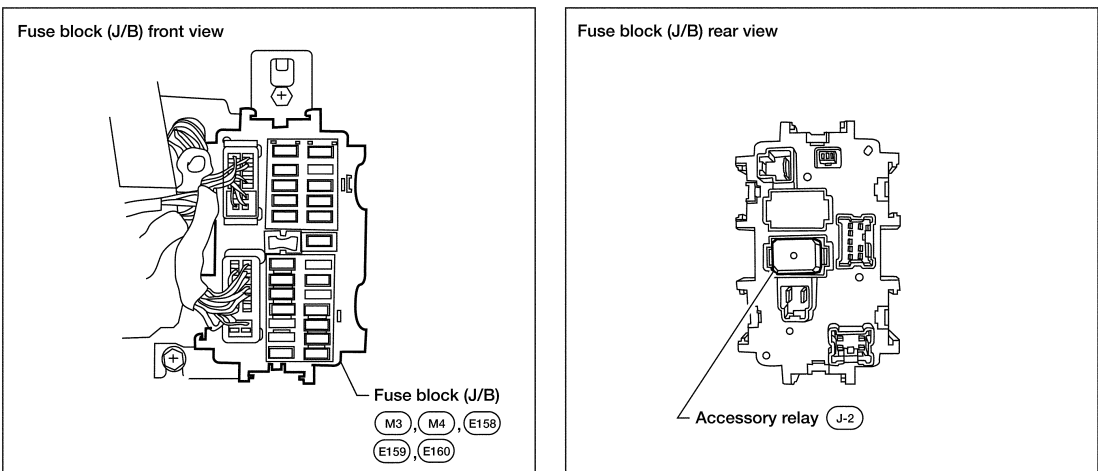
LK1A0629E

ELECTRICAL UNITS LOCATION

< COMPONENT DIAGNOSIS >
PASSENGER COMPARTMENT



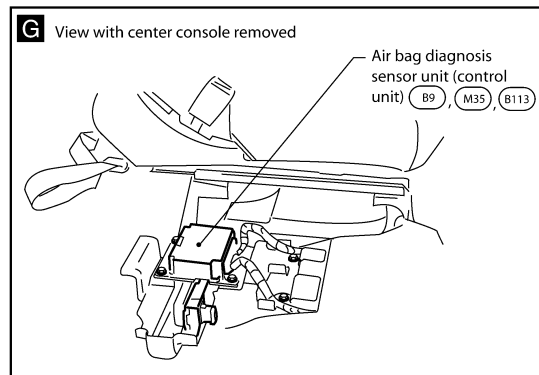
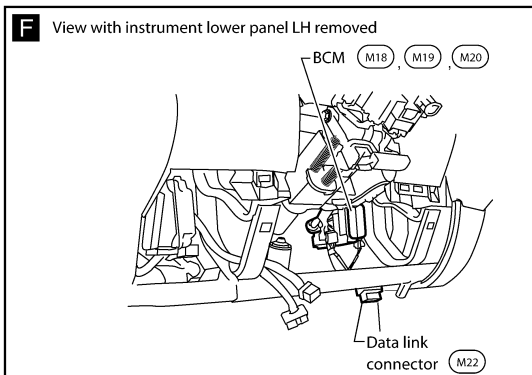
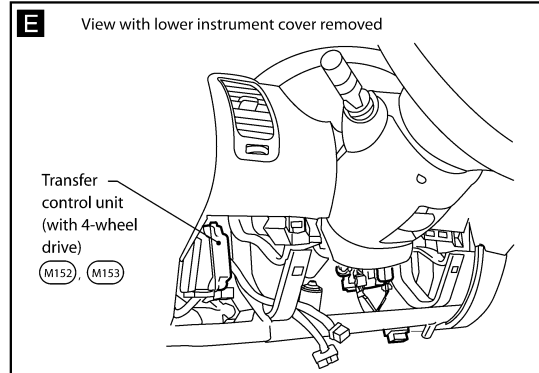
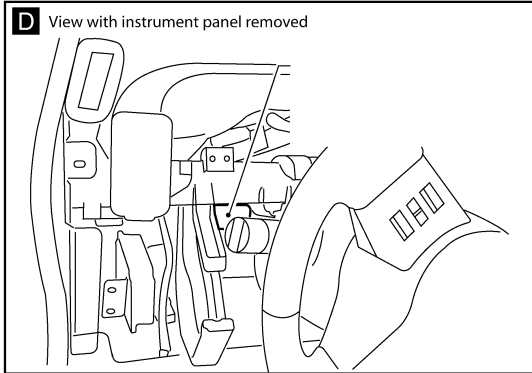
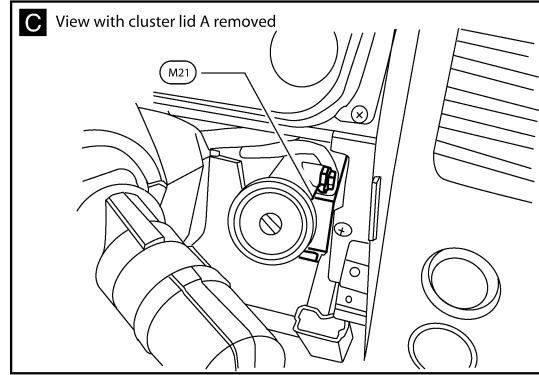
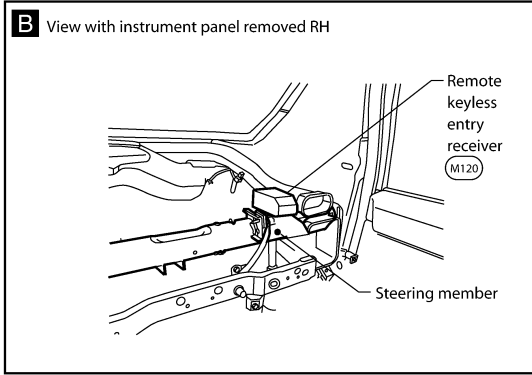
A Instrument panel side RH



WKIA5024E

ELECTRICAL UNITS LOCATION

< COMPONENT DIAGNOSIS >



AWMIA0571GB

HARNESS CONNECTOR

< COMPONENT DIAGNOSIS >

HARNESS CONNECTOR

Description

INFOID:000000001731015

HARNESS CONNECTOR (TAB-LOCKING TYPE)

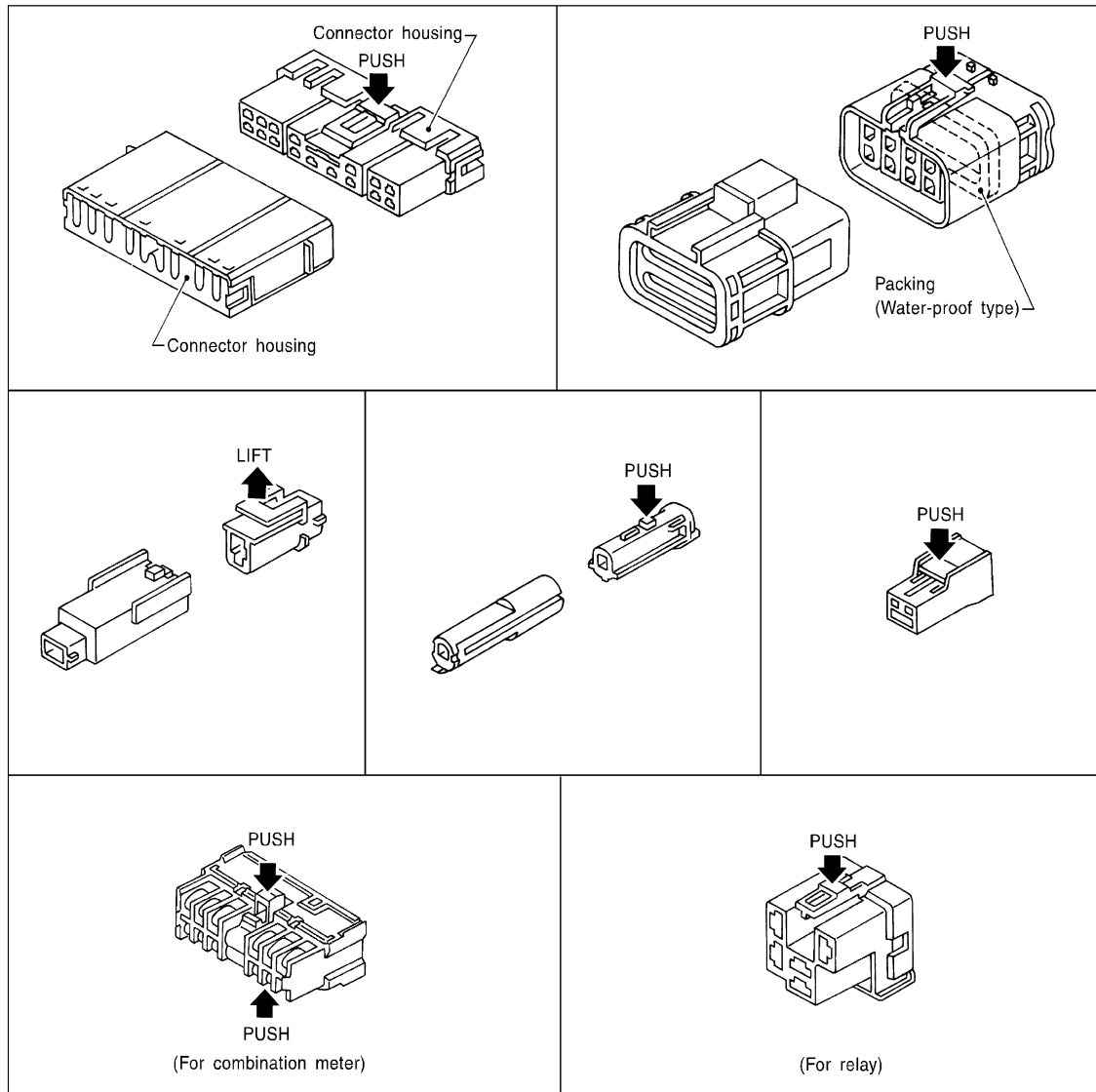
- The tab-locking type connectors help prevent accidental looseness or disconnection.
- The tab-locking type connectors are disconnected by pushing or lifting the locking tab(s). Refer to the illustration below.

Refer to the next page for description of the slide-locking type connector.

CAUTION:

Do not pull the harness or wires when disconnecting the connector.

[Example]



SEL769DA

HARNESS CONNECTOR (SLIDE-LOCKING TYPE)

- A new style slide-locking type connector is used on certain systems and components, especially those related to OBD.
- The slide-locking type connectors help prevent incomplete locking and accidental looseness or disconnection.
- The slide-locking type connectors are disconnected by pushing or pulling the slider. Refer to the illustration below.

A
B
C
D
E
F
G
H
I
J
K
L
PG
N
O
P

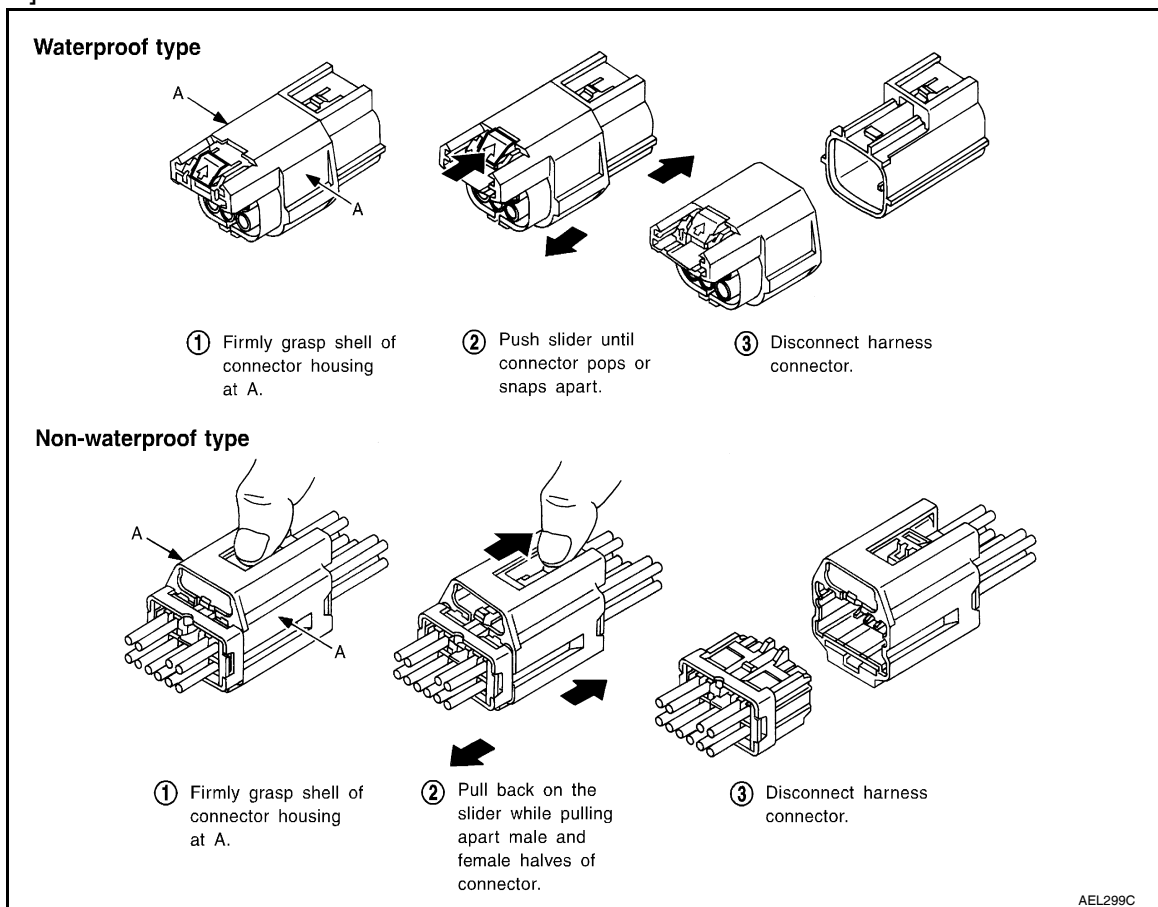
HARNESS CONNECTOR

< COMPONENT DIAGNOSIS >

CAUTION:

- Do not pull the harness or wires when disconnecting the connector.
- Be careful not to damage the connector support bracket when disconnecting the connector.

[Example]



HARNESS CONNECTOR (LEVER LOCKING TYPE)

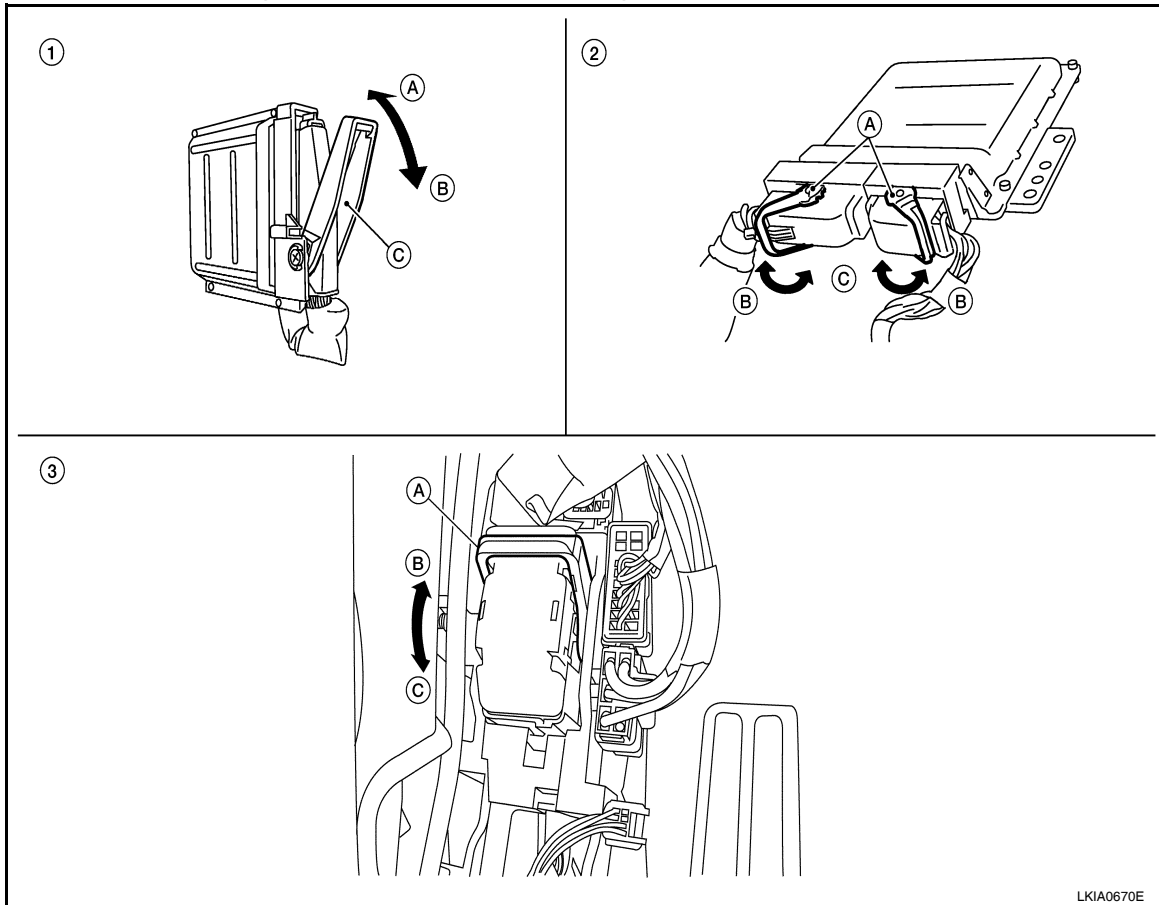
- Lever locking type harness connectors are used on certain control units and control modules such as ECM, ABS actuator and electric unit (control unit), etc.
- Lever locking type harness connectors are also used on super multiple junction (SMJ) connectors.
- Always confirm the lever is fully locked in place by moving the lever as far as it will go to ensure full connection.

CAUTION:

HARNESS CONNECTOR

< COMPONENT DIAGNOSIS >

Always confirm the lever is fully released (loosened) before attempting to disconnect or connect these connectors to avoid damage to the connector housing or terminals.



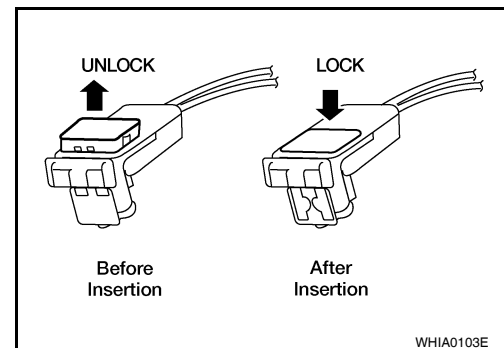
- | | | |
|-----------------------------------|----------------------------------|------------------|
| 1. Control unit with single lever | 2. Control unit with dual levers | 3. SMJ connector |
| A. Fasten | A. Levers | A. Lever |
| B. Loosen | B. Fasten | B. Fasten |
| C. Lever | C. Loosen | C. Loosen |

HARNESS CONNECTOR (DIRECT-CONNECT SRS COMPONENT TYPE)

- SRS direct-connect type harness connectors are used on certain SRS components such as air bag modules and seat belt pre-tensioners.
- Always pull up to release black locking tab prior to removing connector from SRS component.
- Always push down to lock black locking tab after installing connector to SRS component. When locked, the black locking tab is level with the connector housing.

CAUTION:

- Do not pull the harness or wires when removing connectors from SRS components.



WHIA0103E

ELECTRICAL UNITS

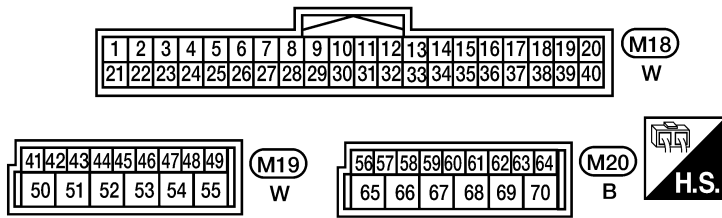
< COMPONENT DIAGNOSIS >

ELECTRICAL UNITS

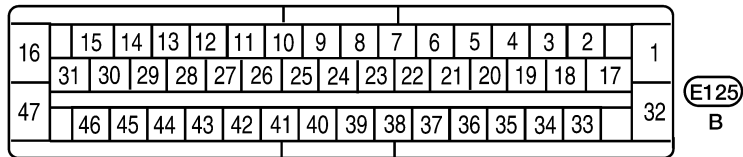
Terminal Arrangement

INFOID:000000001731016

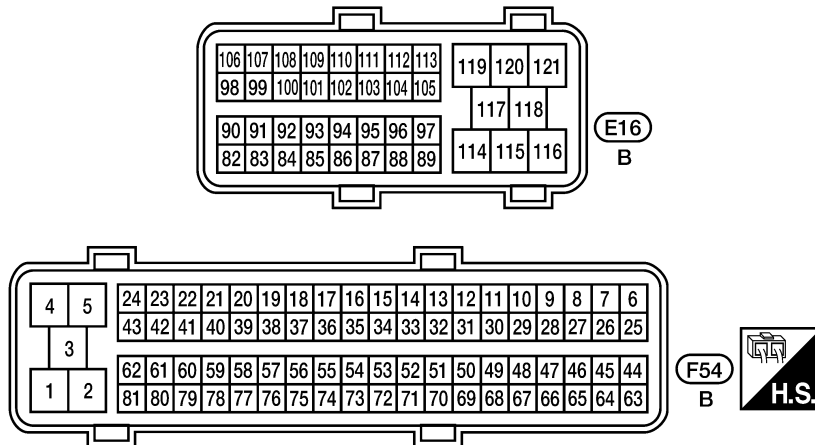
BCM (BODY CONTROL MODULE)



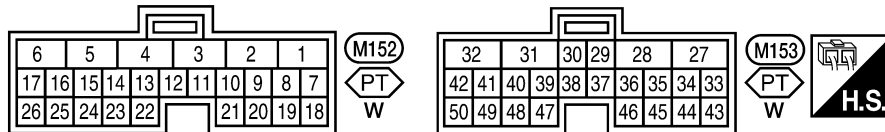
ABS ACTUATOR AND ELECTRIC UNIT (CONTROL UNIT)



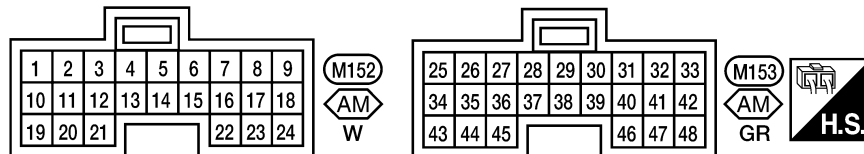
ECM



TRANSFER CONTROL UNIT



TRANSFER CONTROL UNIT



AM : ALL-MODE 4WD SYSTEM PT : PART TIME 4WD SYSTEM

WKIA5869E

STANDARDIZED RELAY

< COMPONENT DIAGNOSIS >

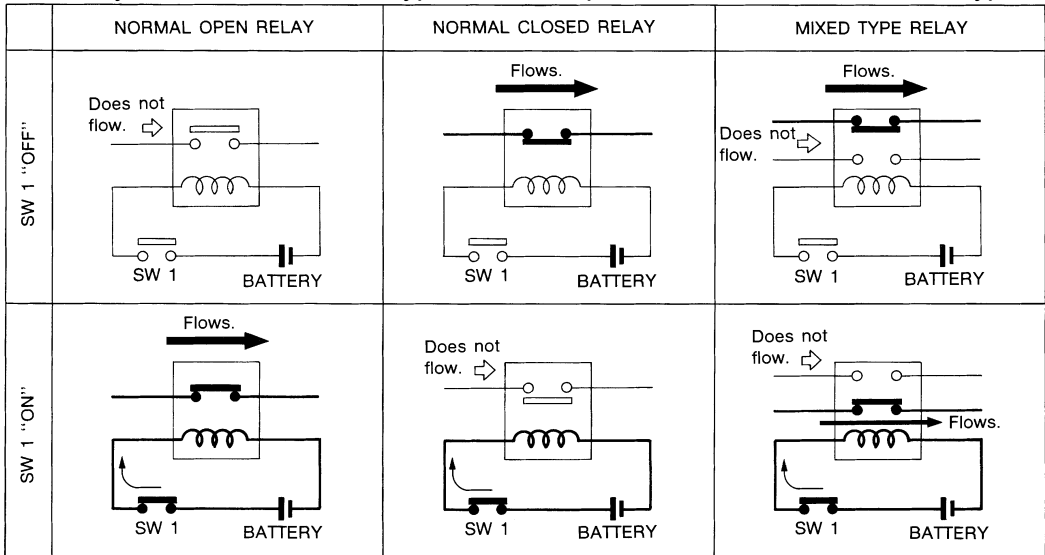
STANDARDIZED RELAY

Description

INFOID:000000001731017

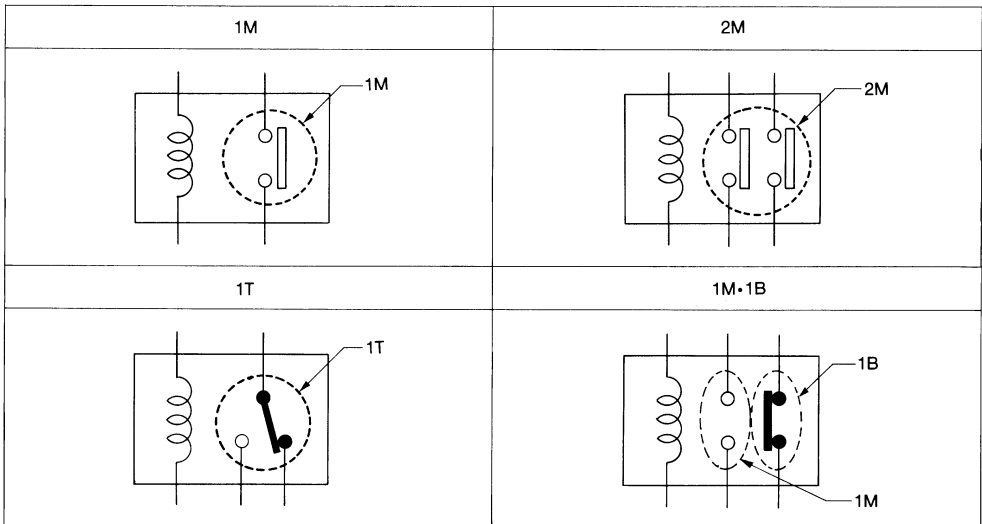
NORMAL OPEN, NORMAL CLOSED AND MIXED TYPE RELAYS

Relays can mainly be divided into three types: normal open, normal closed and mixed type relays.



SEL881H

TYPE OF STANDARDIZED RELAYS

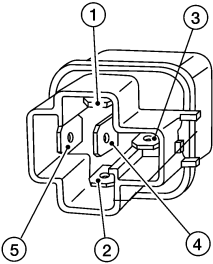
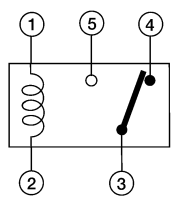
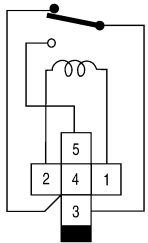
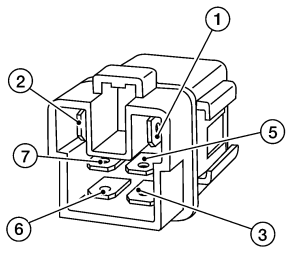
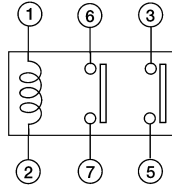
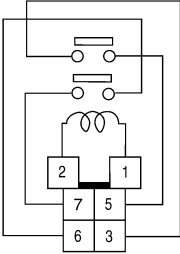
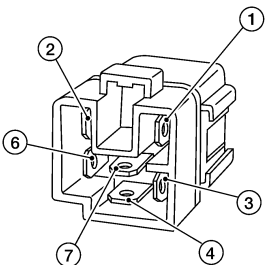
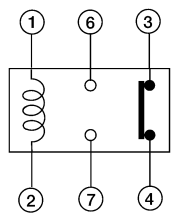
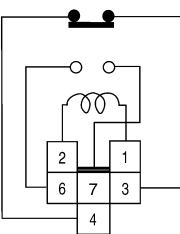
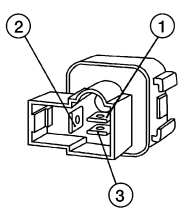
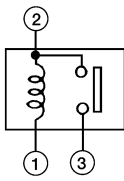
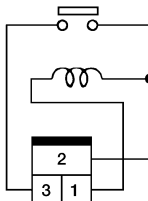
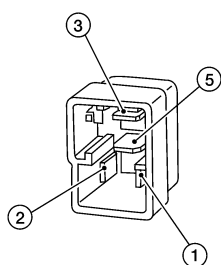
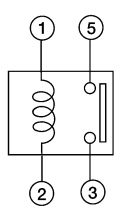
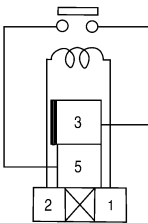


SEL882H

1M	1 Make	2M	2 Make
1T	1 Transfer	1M•1B	1 Make 1 Break

STANDARDIZED RELAY

< COMPONENT DIAGNOSIS >

Type	Outer view	Circuit	Connector Symbol and connection	Case color
1T				BLACK
2M				BROWN
1M · 1B				GRAY
1M				BLACK
				BLUE

The arrangement of terminal numbers on the actual relays may differ from those shown above.

WKIA0253E

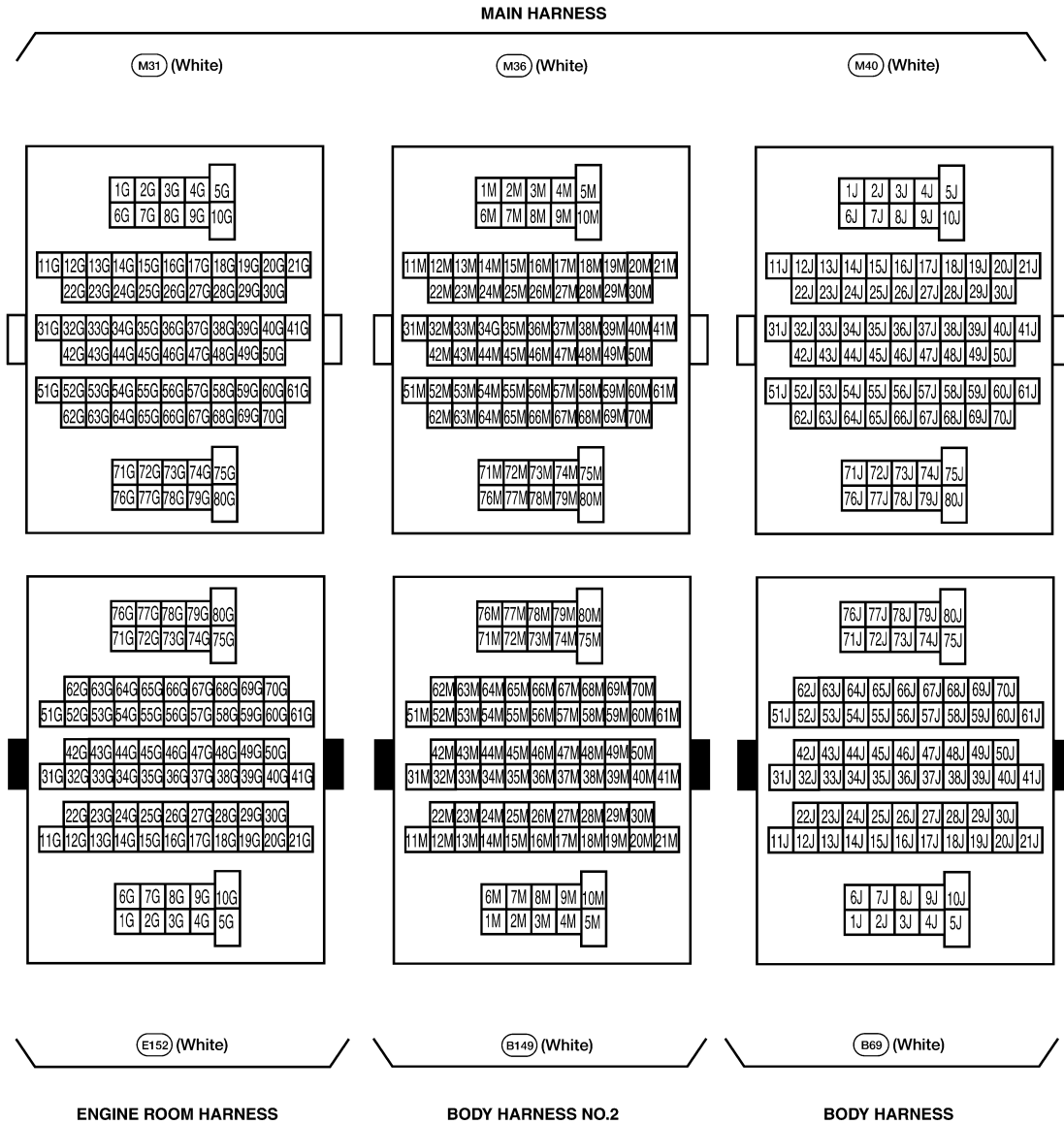
SUPER MULTIPLE JUNCTION (SMJ)

< COMPONENT DIAGNOSIS >

SUPER MULTIPLE JUNCTION (SMJ)

Terminal Arrangement

INFOID:000000001731018



SUPER MULTIPLE JUNCTION (SMJ)

< COMPONENT DIAGNOSIS >

CHASSIS HARNESS

C1 (Black)

40C	41C	42C	43C	44C	45C	46C	47C	48C
31C	32C	33C	34C	35C	36C	37C	38C	39C

19C	26C	27C	28C	29C	30C	25C
	20C	21C	22C	23C	24C	

10C	11C	12C	13C	14C	15C	16C	17C	18C
1C	2C	3C	4C	5C	6C	7C	8C	9C

1C	2C	3C	4C	5C	6C	7C	8C	9C
10C	11C	12C	13C	14C	15C	16C	17C	18C

19C	20C	21C	22C	23C	24C	25C
	26C	27C	28C	29C	30C	

31C	32C	33C	34C	35C	36C	37C	38C	39C
40C	41C	42C	43C	44C	45C	46C	47C	48C

E41 (Black)

ENGINE ROOM HARNESS

WKIA4179E

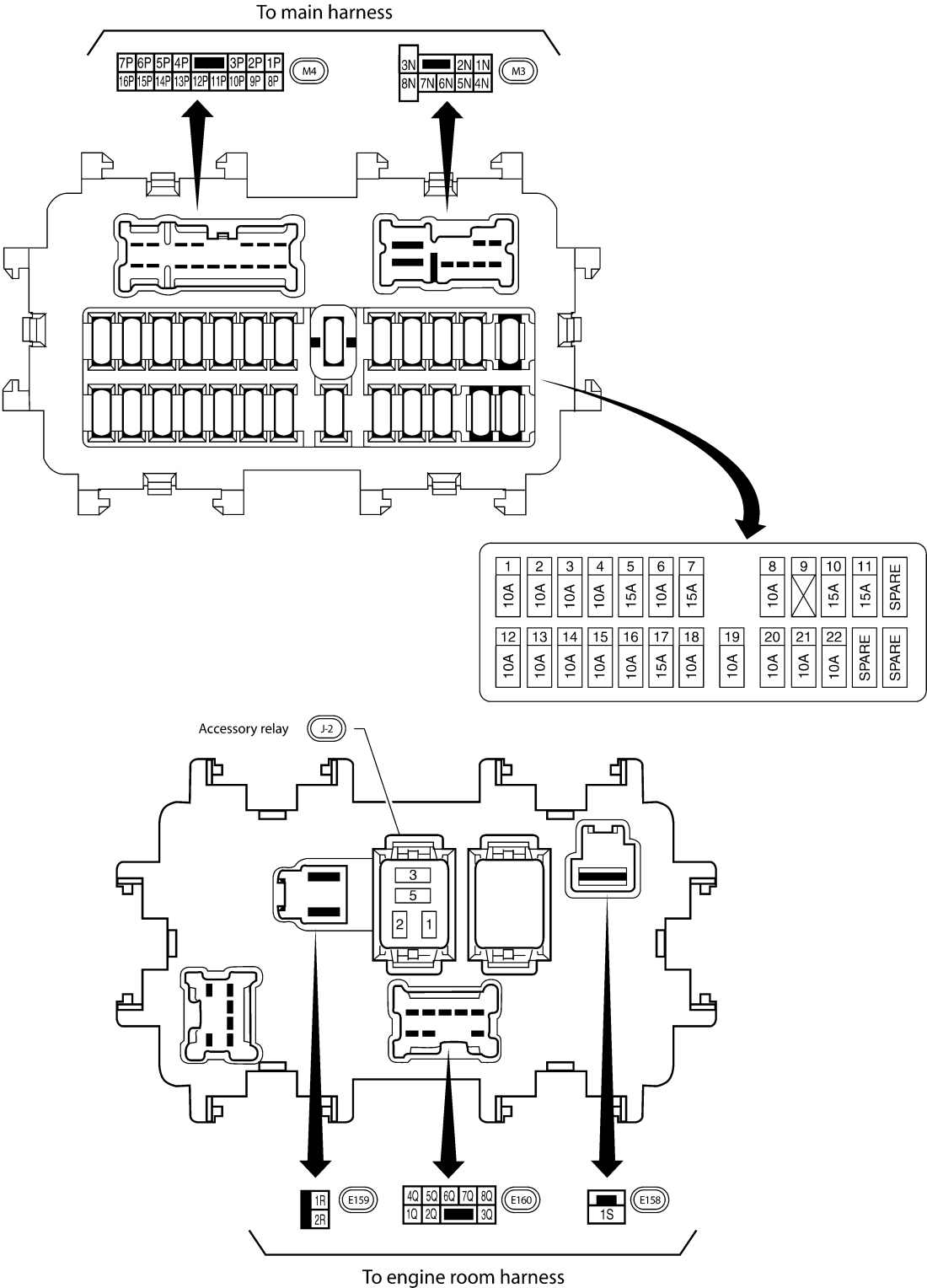
FUSE BLOCK-JUNCTION BOX (J/B)

< COMPONENT DIAGNOSIS >

FUSE BLOCK-JUNCTION BOX (J/B)

Terminal Arrangement

INFOID:000000001731019



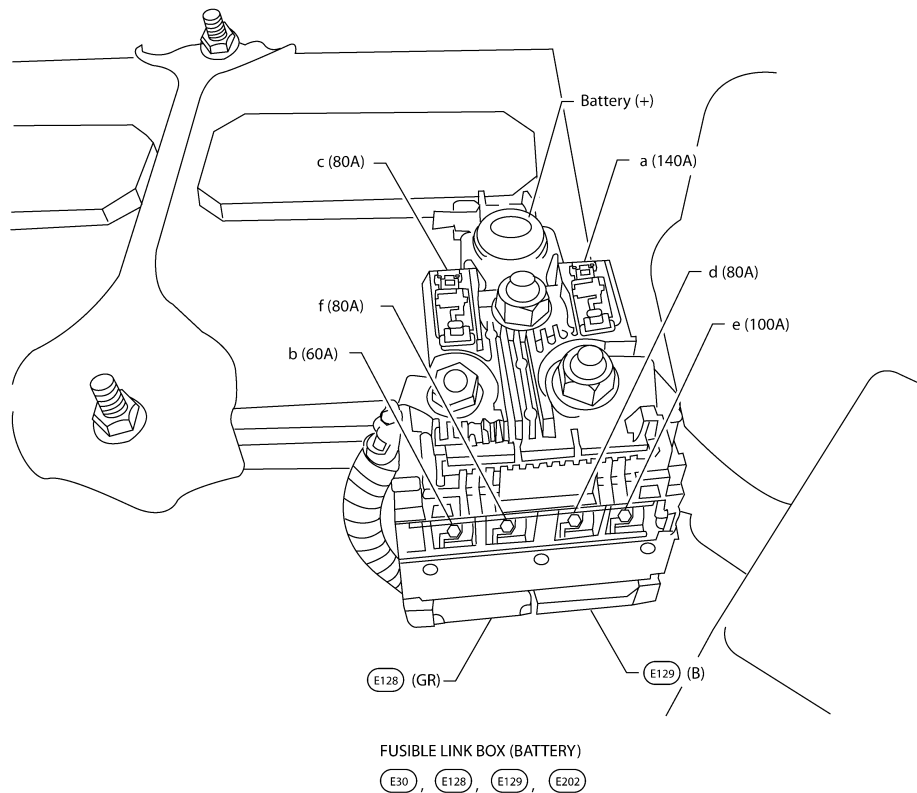
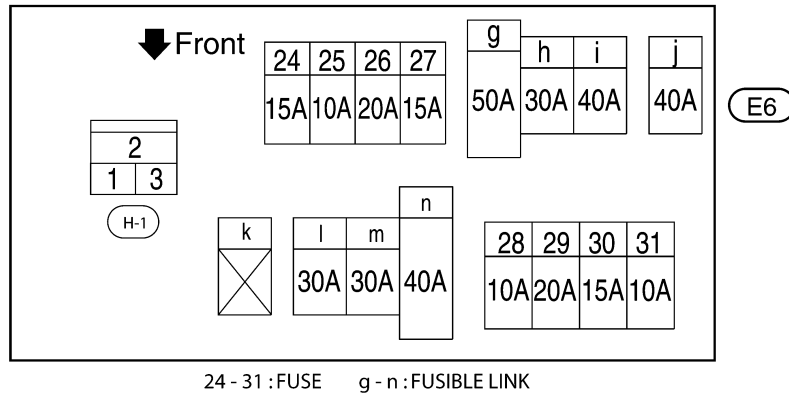
FUSE AND FUSIBLE LINK BOX

< COMPONENT DIAGNOSIS >

FUSE AND FUSIBLE LINK BOX

Terminal Arrangement

INFOID:000000001731020



AWMIA0573GB

FUSE AND RELAY BOX

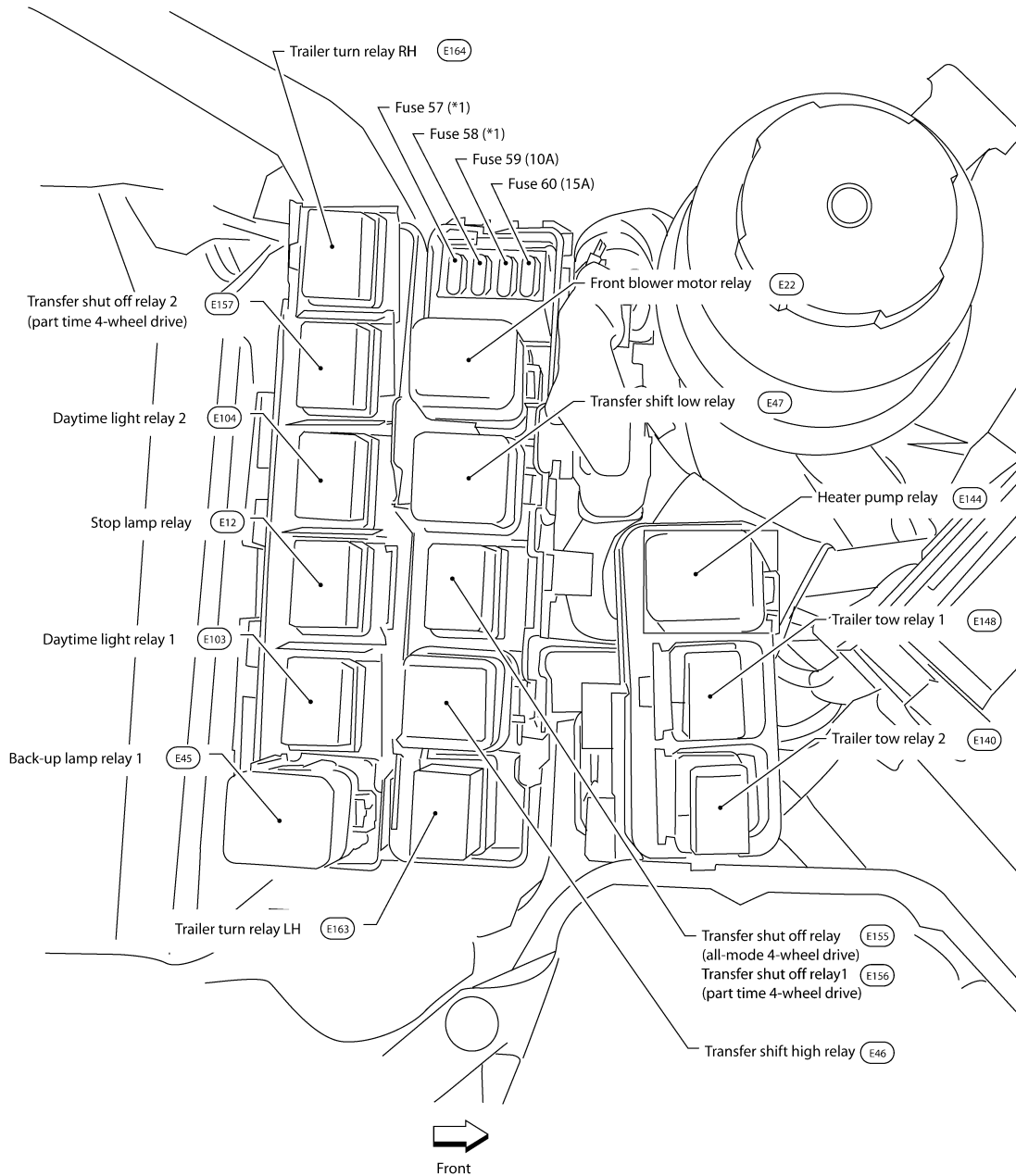
< COMPONENT DIAGNOSIS >

FUSE AND RELAY BOX

Terminal Arrangement

INFOID:000000001731021

- AM : ALL-MODE 4WD SYSTEM
- PT : PART TIME 4WD SYSTEM
- AM : 20A
- *1 PT : 10A



AWMIA0574GB

BATTERY

< ON-VEHICLE REPAIR >

ON-VEHICLE REPAIR

BATTERY

Removal and Installation

INFOID:000000001547054

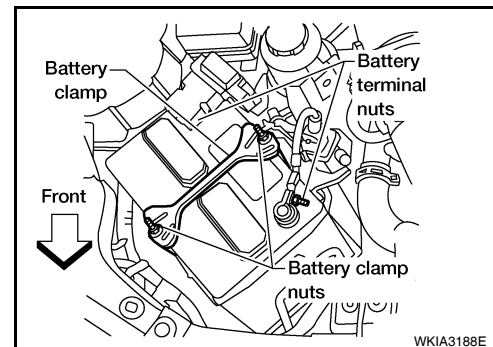
REMOVAL

1. Disconnect both negative and positive battery terminal.

CAUTION:

Remove negative battery terminal first.

2. Remove battery clamp nuts and battery clamp.
3. Remove battery.



INSTALLATION

Installation is in the reverse order of removal.

CAUTION:

Install positive battery terminal first.

Battery clamp nuts : 3.4 N·m (0.35 kg-m, 30 in-lb)

Battery terminal nut : 3.4 N·m (0.35 kg-m, 30 in-lb)

BATTERY

< SERVICE DATA AND SPECIFICATIONS (SDS)

SERVICE DATA AND SPECIFICATIONS (SDS)

BATTERY

Battery

INFOID:0000000001547053

	Standard battery
Type	Gr. 24
Capacity (20 HR) minimum V-AH	63
Cold cranking current A (For reference value)	550

A

B

C

D

E

F

G

H

I

J

K

L

PG

N

O

P